SAMSUNG

User Manual

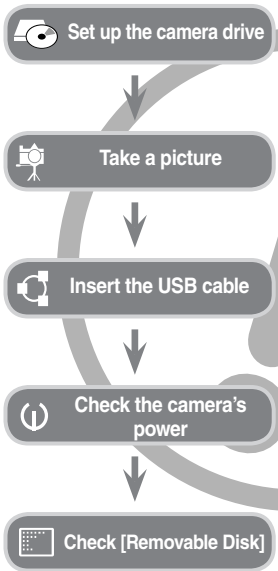
L210

Thank you for buying a Samsung Camera.
This manual will guide you through using the camera, including capturing images, downloading images and using the application software.
Please read this manual carefully before using your new camera.

ENGLISH

Instructions

Use this camera in the following order.



Before connecting the camera to a PC, via the USB cable, you will need to set up the camera driver. Install the camera driver that is contained in Application software CD-ROM. (p.80)

Take a picture. (p.20)

Insert the supplied USB cable into the PC's USB port and the camera's USB connection terminal. (p.84)

Check the camera's power. If the power is turned off, preset the camera button to turn it on.

Open Windows EXPLORER and search for [Removable Disk]. (p.85)

■ If you use a card reader to copy the images on the memory card to your PC, the images could be damaged. When transferring the images taken with the camera to your PC, be sure to use the supplied USB cable to connect the camera to your PC. Please note that the manufacturer takes no responsibility for loss or damage of images on the memory card due to the use of a card reader.

Getting to Know your camera

Thank you for buying a Samsung Digital Camera.

- Prior to using this camera, please read the user manual thoroughly.
- When you require After Sales service, please bring the camera and the cause of the camera malfunction (such as battery, Memory card etc.) to the A/S centre.
- Please check that the camera is operating properly prior to when you intend to use it (e.g. for a trip or an important event) to avoid disappointment. Samsung takes no responsibility for any loss or damage that may result from camera malfunction.
- Keep this manual in a safe place.
- The contents and illustrations of this manual are subject to change without prior notice for upgrading the camera functions.

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❊ All brand and product names appearing in this manual are registered trademarks of their respective companies.

Danger

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

- Do not attempt to modify this camera in any way. To do so may result in fire, injury, electric shock or severe damage to you or your camera. internal inspection, maintenance and repairs should only be carried out by your dealer or Samsung Camera Service centre.
- Please do not use this product in close proximity to flammable or explosive gases, as this could increase the risk of explosion.
- Should any form of liquid or a foreign object enter the camera, do not use it. Switch off the camera, and then disconnect the power source. You must contact your dealer or Samsung Camera Service centre. Do not continue to use the camera as this may cause a fire or electric shock.
- Do not insert or drop metallic or inflammable foreign objects into the camera through access points e.g. the memory card slot and battery chamber. This may cause a fire or electric shock.
- Do not operate this camera with wet hands. This could pose a risk of electric shock.

Warning

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

- Do not use the flash in close proximity to people or animals. Positioning the flash too close to your subject's eyes may cause eyesight damage.
- For safety reasons keep this product and accessories out of reach of children or animals to prevent accidents e.g.:
 - Swallowing battery or small camera accessories. If an accident should occur, please consult a doctor immediately.
 - There is the possibility of injury from the camera's moving parts.
- Battery and camera may become hot during prolonged use and it may result in camera malfunction. Should this be the case, allow the camera to sit idle for a few minutes to allow it time to cool.
- Do not leave this camera in places subject to extremely high temperatures, such as a sealed vehicle, direct sunlight or other places of extremes in temperature. Exposure to extreme temperatures may adversely affect the camera's internal components and could cause a fire.
- When in use, do not cover the camera or Charger. This may cause heat to build up and distort the camera body or cause a fire. Always use the camera and its accessories in a well-ventilated area.

Caution

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in a minor or moderate injury.

- Leaking, overheating, or damaged battery could result in fire or injury.
 - Use battery with the correct specification for the camera.
 - Do not short circuit, heat or dispose of battery in fire.
 - Do not insert the battery with the polarities reversed.
- Remove the battery when not planning to use the camera for a long period of time. Otherwise the battery may leak corrosive electrolyte and permanently damage the camera's components.
- Do not fire the flash while it is in contact with hands or objects. Do not touch the flash after using it continuously. It may cause burns.
- Do not move the camera while it is switched on, if you are using the AC Charger. After use, always switch off the camera before unplugging the cable from the wall socket. Then make sure that any connector cords or cables to other devices are disconnected before moving the camera. Failure to do so may damage the cords or cables and cause a fire or electric shock.
- Take care not to touch the lens or lens cover to avoid taking an unclear image and possibly causing camera malfunction.
- Avoid obstructing the lens or the flash when you capture an image.
- Credit cards may be demagnetized if left near case. Avoid leaving magnetic strip cards near the case.
- It is highly likely to result in computer malfunctions when the 20 pin connector is connected to the USB port of a PC. Never connect the 20 pin connector to USB port of a PC.

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System chart

Please check that you have the correct contents before using this product. The contents can vary depending on the sales region. To buy the optional equipment, contact your nearest Samsung dealer or Samsung service centre.

Included items



Camera



Rechargeable battery (SLB-10A)



USB cable (SUC-C3)
AC adapter (SAC-47)



AV cable



Camera strap



Software CD



User manual,
Product warranty

Optional Items



SD/SDHC/MMC
memory card (see p.15)



Camera case

Identification of features

Front & Top



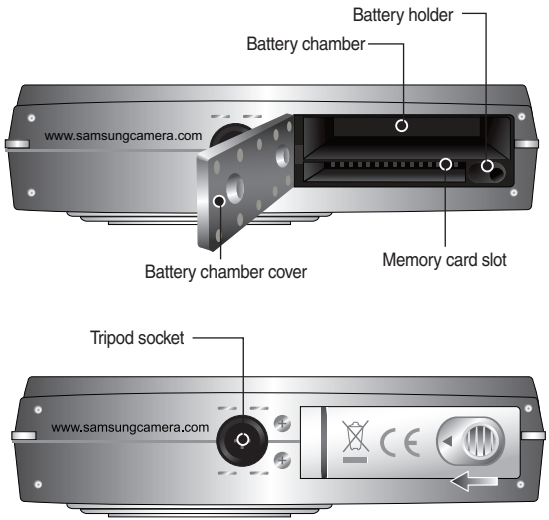
Identification of features

Back



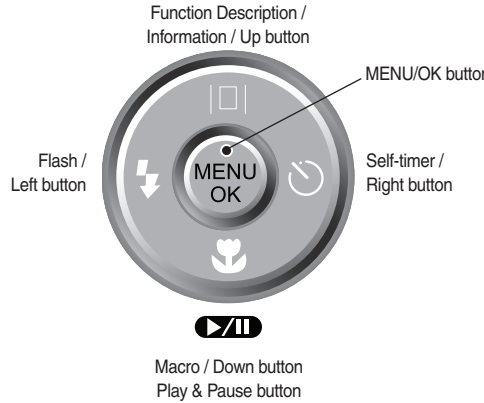
Identification of features

Bottom



❊ To open the battery chamber cover, slide it in the direction shown above.

5 Function button



Identification of features

Self-timer lamp

Icon	Status	Description
	Blinking	For the first 8 seconds, the lamp blinks at 1 second intervals. For the final 2 seconds, the lamp blinks quickly at 0.25-second intervals.
	Blinking	For the 2 seconds, the lamp blinks quickly at 0.25-second intervals.
	Blinking	A picture will be taken after about 10 seconds and 2 seconds later a second picture will be taken
	Blinking	After pressing the Shutter button, the image is taken in accordance with the subject's movement.

Camera Status Lamp

Status	Description
Power on	The lamp turns on and off when the camera is ready to take a picture
After taking a picture	The lamp blinks while saving the image data and turns off when the camera is ready to take a picture
When flash battery is charging	The lamp blinks
When the USB cable is inserted to a PC	The lamp lights up (LCD monitor turns off after initializing the device)
Transmitting Data with a PC	The lamp blinks (LCD monitor turns off)
When the USB cable is inserted to a printer	The lamp is off
When the printer is printing	The lamp blinks
When the AF activates	The lamp turns on (The camera focuses on the subject)
	The lamp blinks (The camera doesn't focus on the subject)

Mode icon

■ Refer to page 20~24 for more information about the camera mode setting.

MODE	Auto	Program	Manual	DUAL IS
ICON				
MODE	Photo Help Guide	Portrait	Scene	Movie
ICON				

MODE	Scene(SCENE)				
	Nightscene	Children	Landscape	Close up	Text
ICON					
MODE	Sunset	Dawn	Backlight	Firework	Beach & Snow
ICON					

Connecting to a Power Source

You should use the rechargeable battery SLB-10A supplied with the camera. Be sure to charge the battery before using the camera.

■ SLB-10A rechargeable battery Specification

Model	SLB-10A
Type	Lithium Ion
Capacity	1,050mAh
Voltage	3.7V
Charging time(When the camera is turned off)	Approx. 180 MIN

■ Number of images and battery life : Using the SLB-10A

Still image		Movie
Battery life	Number of images	Recording time
Approx. 110 MIN	Approx. 220 shots	Approx. 110 MIN
Conditions	Using the fully charged battery, Auto mode, 10M image size Fine image quality, Shot to shot interval: 30Sec. Changing the zoom position between the Wide and the Tele after every shot. Using the flash on every second shot. Using the camera for 5 minutes and then Powering it off for 1 minute.	Using the fully charged battery 640x480 image size 30fps frame rate

❊ These figures are measured under Samsung's standard conditions and shooting conditions and may vary depending on the user's methods.

❊ These figures are measured under OIS shooting condition.



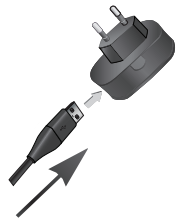
Important information about battery usage.

- When the camera is not used, turn off the camera power.
- Please remove the battery if the camera will not be used for long periods. Batteries can lose power over time and are prone to leaking if kept inside the camera.
- Low temperatures (below 0°C) can affect the performance of the battery and you may experience reduced battery life.
- Batteries will usually recover at normal temperatures.
- During extended use of the camera, the camera body may become warm. This is perfectly normal.

Connecting to a Power Source

You can charge the rechargeable battery SLB-10A by using the SAC-47 KIT which consists of the AC adapter (SAC-47) and the USB cable (SUC-C3). When the SAC-47 and SUC-C3 are combined, they can be used as an AC cable.

- Using an AC cable
 : Connect the AC adapter(SAC-47) to the USB cable. It can be used as a power cable.



- Using a USB cable
 : Remove the AC adapter (SAC-47). You can download stored images to your PC (p.84) or supply the power to your camera through the USB cable(SUC-C3).

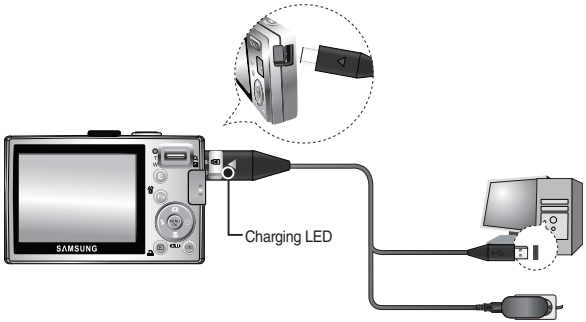


Important information about USB cable usage.

- Use a USB cable (SUC-C3) with the correct specification.
- If the camera is connected to the PC through a USB hub: connect the camera directly to the PC.
- the camera and other devices are connected to the PC at the same time : remove other device.
- If the USB cable is connected to a port located on the front of the PC : remove the cable and connect it to a port located on the back of the PC.
- If the USB port of the PC doesn't meet the Power output standard(4.2V, 400mA), the camera may not be charged.

Connecting to a Power Source

■ How to charge the rechargeable battery (SLB-10A)



- Before inserting any cables or AC adapter, check the directions and do not insert using force. It may cause breakage of cable or camera.
- If the charging LED of the AC Charger does not turn on or blink after inserting the rechargeable battery, please check whether the battery is inserted correctly.
- If you charge the battery with the camera power on, the battery can't charge fully. Turn the camera off while charging the battery.

■ Charging LED of the AC Adapter

	Charging LED
Being Charged	Red LED is on
Charging is complete	Green LED is on
Charging error	Red LED is off or blinking
Being discharged	Orange coloured LED is on

- If you insert the fully discharged battery to charge it, do not turn on the camera at the same time. The camera may not be turned on because of the low battery capacity. Charge the battery for more than 10 minutes before using the camera.
- Do not use the flash frequently or take a movie with the fully discharged battery charged for a short time. Even if the charger is inserted, the camera power may be turned off because the rechargeable battery is discharged again.

Inserting the battery

■ Insert the battery as shown

- If the camera does not turn on after you have inserted battery, please check whether the battery is inserted with the correct polarity (+ / -).
- When the battery chamber cover is opened, do not force it. This may cause damage to the battery chamber cover.



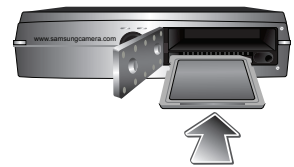
■ There are 4 indicators for battery condition that are displayed on the LCD monitor.

Battery indicator				
Battery status	The battery is fully charged	Low battery capacity (Prepare to recharge or use spare battery)	Low battery capacity (Prepare to recharge or use spare battery)	Battery empty (Recharge or use spare battery)

Inserting the memory card

■ Insert the memory card as shown.

- Turn off the camera's power before inserting the memory card.
- Have the front of the memory card facing toward the back of the camera (LCD monitor) and the card pins toward the front of the camera (Lens).



- Do not insert the memory card the wrong way round. Doing so may damage the memory card slot.

Instructions on how to use the memory card

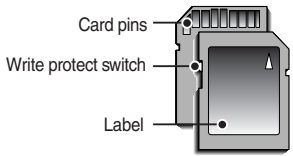
- Be sure to format the memory card (see p.75) if you are using a newly purchased memory card for the first time, if it contains data that the camera cannot recognise, or if it contains images captured with a different camera.
- Turn off the camera power whenever the memory card is being inserted or removed.
- Repeated use of the memory card will eventually reduce the memory card's performance. Should this be the case, you will need to purchase a new memory card. Wear and tear on the memory card is not covered by the Samsung warranty.
- The memory card is an electronic precision device.
 Do not bend, drop or subject the memory card to any heavy impact.
- Do not store the memory card in an environment with strong electronic or magnetic fields, e.g. near loud speakers or TV receivers.
- Please do not use or store in an environment where there are extremes in temperature.
- Do not allow the memory card to become dirty or to come into contact with any liquid. Should this happen, clean the memory card with a soft cloth.
- Please keep the memory card in its case when not in use.
- During and after periods of extended use, you may notice that the memory card is warm. This is perfectly normal.
- Do not use a memory card that is used in another digital camera. To use the memory card in this camera, format the memory card using this camera.
- Do not use a memory card formatted by another digital camera or memory card reader.
- If the memory card is subjected to any of the following, the recorded data may become corrupted :
 - When the memory card is used incorrectly.
 - If the power is switched off or the memory card is removed while recording, deleting (formatting) or reading.
- Samsung cannot be held responsible for lost data.
- It is advisable to copy important data onto other media as back-up e.g. floppy disks, hard disks, CD etc.
- If there is insufficient memory available :
 A [Memory Full!] message will appear and the camera will not operate. To optimise the amount of memory in the camera, replace the memory card or delete unnecessary images stored on the memory card.



- Don't remove the memory card when the camera status lamp is blinking as this may cause damage to data in the memory card.

Instructions on how to use the memory card

■ The camera can use SD/ SDHC Memory Cards and MMC (Multi Media Cards).



[SD (Secure Digital) memory card]

- The SD/ SDHC memory card has a write protect switch that prevents image files from being deleted or formatted. By sliding the switch to the bottom of the SD memory card, the data will be protected. By sliding the switch to the top of the SD memory card, the data protection will be cancelled.
- Slide the switch to the top of the SD memory card before taking a picture.

■ When using a 256MB MMC memory, the specified shooting capacity will be as follows. These figures are approximate as image capacities can be affected by variables such as subject matter and memory card type.

Recorded image size		Super Fine	Fine	Normal	30FPS	20FPS	15FPS
Still image	10M	About 50	About 96	About 140	-	-	-
	9M	About 57	About 109	About 156	-	-	-
	7M	About 71	About 133	About 192	-	-	-
	7M	About 66	About 126	About 183	-	-	-
	5M	About 100	About 181	About 260	-	-	-
	3M	About 146	About 269	About 372	-	-	-
	1M	About 504	About 710	About 822	-	-	-
Movie	800	-	-	-	-	About 8'48"	-
	640	-	-	-	About 9'02"	-	About 17'37"
	320	-	-	-	About 36'36"	-	About 60'21"

- The recording times can be changed by the zoom operation.
- The zoom button doesn't function during the movie recording.

When Using the Camera for the First Time

- Charge the rechargeable battery fully before using the camera for the first time.
- When the camera is turned on for the first time, a menu will be displayed to set date / time and language in the LCD monitor. This menu will not be displayed after setting up. Set up the date / time and language before using this camera.

Setting up the Language

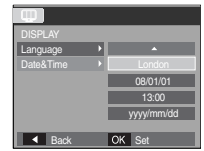
1. Select the [Language] menu by pressing the **UP/ DOWN** button and press the **RIGHT** button.
2. Select the desired sub menu by pressing the **UP / DOWN** button and press the **OK** button.



- You can select one of 22 languages. These are listed below :
 - English, Korean, French, German, Spanish, Italian, S.Chinese, T.Chinese, Japanese, Russian, Portuguese, Dutch, Danish, Swedish, Finnish, Thai, Bahasa (Malay/ Indonesian), Arabic, Czech, Polish, Hungarian and Turkish.
- Even if the camera is restarted, the language setting will be maintained.

Setting up the date, time and date type

1. Select the [Date&Time] menu by pressing the **UP/ DOWN** button and press the **RIGHT** button.
2. Select the desired sub menu by pressing the **UP/ DOWN/ LEFT/ RIGHT** button and press the **OK** button.



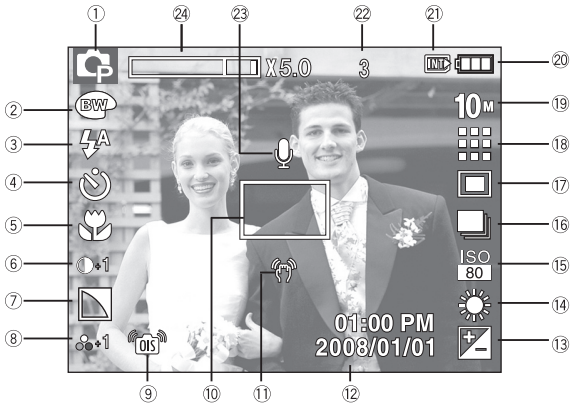
RIGHT button : Selects WORLD TIME/ YEAR/MONTH/DAY/HOUR/MINUTE/DATE TYPE

LEFT button : Moves the cursor to the [Date&Time] main menu if the cursor is at the first item of the date and time setup. In all other instances, the cursor will be shifted to the left of its current position.

UP/ DOWN button : Changes the value of each item.

LCD monitor indicator in recording mode

■ The LCD monitor displays information about the shooting functions and selections.



[Image & Full Status]

No.	Description	Icons	Page
1	Recording mode		p.20
2	Color / Face Detection / Self Portrait	/	p.36/ 45~46
3	Flash		p.30
4	Self-timer		p.32
5	Macro		p.28

No.	Description	Icons	Page
6	Contrast	-2 -1 +1 +2	p.37
7	Sharpness		p.37
8	Saturation	-2 -1 +1 +2	p.37
9	OIS		p.34
10	Auto Focus Frame		p.46
11	Camera shake Warning		p.25
12	Date / Time	2008/01/01 01:00 PM	p.73
13	Exposure compensation		p.43
14	White Balance	AWB	p.42
15	ISO	AUTO 80 100 200 400 800 1600	p.41
16	Drive mode / Stabiliser	/	p.40/43
17	Metering		p.40
18	Image Quality / Frame Rate	/ 30 20 15	p.39
19	Image Size	10M 9M 7M 5M 3M 800 640 320	p.39
20	Battery		p.15
21	Memory card icon / Internal memory icon	/	-
22	Number of available shots remaining / Remaining time	3/00:00:00	p.17
23	Voice Memo/Mic. Off	/	p.48/49
24	Optical / Digital Zoom bar /Digital Zoom rate	X5.0	p.26

Starting the recording mode

How to use the AUTO mode (AUTO)

■ Please select this mode for quick and easy picture taking with minimal user interaction.

1. Insert the batteries (p.15). Insert the batteries taking note of the polarity (+ / -).
2. Insert the memory card (p.15). As this camera has a 10MB internal memory, you do not need to insert the memory card. If the memory card is not inserted, an image will be stored in the internal memory. If the memory card is inserted, an image will be stored on the memory card.
3. Close the battery chamber cover.
4. Press the power button to turn on the camera. (If the date/ time that is displayed on the LCD monitor is incorrect, reset the date/ time before taking a picture.)
5. Select the AUTO mode by rotating the mode dial.
6. Point the camera towards the subject and compose the image by using the LCD monitor.
7. Press the shutter button to capture an image.





- If the auto focus frame turns to red when you press the shutter button down half way, it means that the camera cannot focus on the subject. Should this be the camera, the camera is unable to capture an image clearly.
- Avoid obstructing the lens or the flash when you capture an image.

How to use the PROGRAM mode (P)

■ Selecting the automatic mode will configure the camera with optimal settings. You can still manually configure all functions except the aperture value and shutter speed.

1. Select the PROGRAM mode by rotating the mode dial.
2. Press the **Fn** button to configure advanced functions such as Image Size (p.39), Quality (p.39), Metering (p.40), Drive mode (p.40), ISO (p.41), White Balance (p.42), Exposure Compensation(p.43).





Starting the recording mode

How to use the MANUAL mode (M)

■ You can manually configure all functions, aperture value and shutter speed.

1. Select the MANUAL mode by rotating the mode dial.



2. Press the **Fn** button and menu for the shutter speed and aperture value will be displayed.
 Up / Down button : changes aperture value
 Left / Right button : changes shutter speed.



3. Press the **Fn** button twice and take an image.

- Smaller Aperture values make the object sharp but blur the background. Larger Aperture values make both the object and background sharp.
- High Shutter speeds can capture a moving object in a still image as if the object is not moving. Low Shutter speeds can capture a moving object with an 'active' effect.

How to use the DUAL IS mode (DUAL)

■ This mode will reduce the effect of camera shake and help you to get a well-exposed image operating both OIS and DIS function.

1. Select the DUAL IS mode by rotating the Mode dial.



2. Point the camera towards the subject and compose the image by using the LCD monitor.
3. Press the **shutter** button to capture an image.



■ Things to watch out for using the DUAL IS mode

- The digital zoom will not operate in the DUAL IS mode.
- If the lighting conditions are brighter than fluorescent lighting, the DUAL IS will not activate.
- If the lighting conditions are darker than fluorescent lighting, camera shake warning indicator () will be displayed. For best results only take pictures in situations where the camera shake warning indicator () is not displayed.
- If the subject is moving, the captured image may be blurred.
- Avoid moving the camera while the [Capturing!] message is displayed to achieve a better result.
- As the DUAL IS uses the camera's digital signal processor, it may take a little longer for the camera to process and save the images.
- If the image size is () or (), the DUAL IS mode can't be selected.

Starting the recording mode

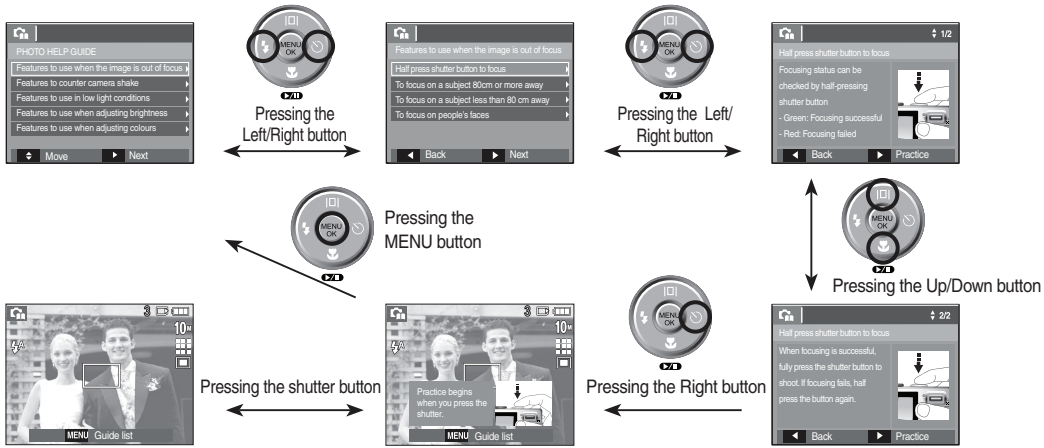
Using the PHOTO HELP GUIDE mode ()

■ Helps the user learn the correct picture taking method and includes solutions for potential problems that may occur. This also enables the user to practice the best way to take the pictures.



Available functions of the photo help guide

- Features to use when the image is out of focus
- Features to counter camera shake
- Features to use in low light conditions
- Features to use when adjusting brightness
- Features to use when adjusting colours



[Function that can be used when focusing is difficult]

Starting the recording mode

How to use the PORTRAIT mode ()

■ Please select this mode for quick and easy portraits.

1. Select the portrait mode by rotating the mode dial.
2. Press the **shutter** button to capture an image.





How to use the SCENE modes (SCENE)

■ Use the menu to easily configure optimal settings for a variety of shooting situations.

1. Select the Scene mode by rotating the Mode dial.
2. Point the camera towards the subject and compose the image by using the LCD monitor.
3. Press the **shutter** button to capture an image.





■ The scene modes are listed below.

Mode	Icon	Description
Nightscene		Use this for shooting still images at night or in other dark conditions.
Children		To take a picture of fast moving objects, for example, children.
Landscape		To take pictures of distant scenery.
Close Up		Close-up shooting for small objects such as plants and insects.
Text		Use this mode to shoot a document.
Sunset		For taking pictures of sunsets.
Dawn		Daybreak scenes.
Backlight		Portraits without shadows caused by backlight.
Firework		Firework scenes.
Beach & Snow		For ocean, lake, beach and snowscape scenes.

Starting the recording mode

How to use the MOVIE mode (🎥)

■ A movie can be recorded for as long as the available recording time of the memory capacity allows.

1. Select the Movie mode by rotating the Mode dial.
2. Point the camera towards the subject and compose the image by using the LCD monitor.
3. Press the **shutter** button once and movies are recorded for as long as the available recording time allows. Movies will still be recorded if the shutter button is released. If you wish to stop recording, press the **shutter** button again.



❊ Image size and type are listed below.

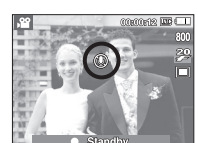
- Image size : 800x592, 640x480, 320x240 (Selectable)
- Movie file type : AVI (MPEG-4)
- Frame Rate : 30FPS, 20FPS, 15FPS
- When the 800x592 image size is selected, the 30FPS and 15FPS can`t be selected. And when the 640x480 or 320x240 image size is selected, 20 FPS can`t selected.

Recording the movie without sound

■ You can record the movie without sound.

Steps from 1-3 are the same as those for MOVIE mode.

4. Press the **Menu** button.



5. Select the [RECORDING] menu by pressing the **Left / Right** button.
6. Press the **Down** button to select the [Voice Mute] menu and press the **Right** button.
7. Select the [On] menu by pressing the **Up / Down** button.
8. Press the **OK** button. You can record a movie without sound.

Pausing while recording a movie (Successive Recording)

This camera allows you to temporarily stop during unwanted scenes, while recording a movie. Using this function, you can record your favourite scenes into a movie without having to create multiple movies.

■ Using Successive Recording

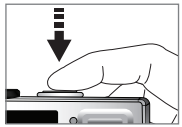
Steps from 1-2 are the same as those for MOVIE mode.



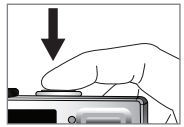
3. Point the camera towards the subject and compose the image by using the LCD monitor. Press the **shutter** button and movies are recorded for as long as the available recording time. Movies will still be recorded if the shutter button is released.
4. Press the **Pause** button (▶/II) to pause recording.
5. Press the **Pause** button (▶/II) again to resume the recording.
6. If you wish to stop recording, press the **shutter** button again.

Things to Watch Out for When Taking Pictures

- Pressing the shutter button down half way.
 Lightly press the shutter button to confirm focus and flash battery charge. Press the shutter button all way down to take the picture.



[Lightly press the shutter button]



[Press the shutter button]

- The available memory capacity may vary depending on shooting conditions and camera settings.
- When the Flash Off or Slow synchro mode is selected in a low lighting condition, the camera shake warning indicator () may appear on the LCD monitor. In this case, use a tripod, support the camera on a solid surface or change to flash shot mode.
- Shooting against the light : Please do not take pictures against the sun. Doing so may make the picture dark. To take a picture against the light, please use the [BACKLIGHT] in the scene shooting mode (see page 23), fill-in flash (see page 31), spot metering (see page 40), or exposure compensation (see page 43).
- Avoid obstructing the lens or the flash when you capture an image.
- Compose the image by using the LCD monitor.

- Under certain conditions the auto focus system may not perform as expected.
 - When photographing a subject that has little contrast.
 - If the subject is highly reflective or shiny.
 - If the subject is moving at high speed.
 - When there is strong reflected light, or when the background is very bright.
 - When the subject matter has only horizontal lines or the subject is very narrow (such as a stick or flagpole).
 - When the surroundings are dark.

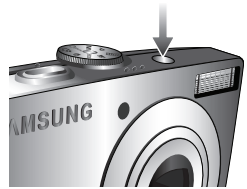
Setting up the recording function using the camera buttons

The recording mode function can be set up by using the camera buttons.

POWER button

Used for turning the camera's power on / off.

If there is no operation during the specified time, the camera's power will be turned off automatically to save battery life.
Refer to page 77 for more information about the auto power off function.



SHUTTER button

Used for taking an image or recording voice in the RECORDING mode.



- In MOVIE mode
 Pressing the shutter button down fully starts the process for recording a movie. Press the shutter button once and the movie is recorded for as long as the available recording time in the memory allows. If you wish to stop recording, press the shutter button again.
- In STILL IMAGE mode
 Pressing the shutter button down halfway activates the autofocus and checks the condition of the flash. Pressing the shutter button down fully takes and stores the image. If you select voice memo recording, the recording will start after the camera has finished storing the image data for 10 seconds.

ZOOM W / T button

If the menu is not displayed, this button works as the OPTICAL ZOOM or DIGITAL ZOOM button. This camera has a 3X optical zoom and a 5X digital zoom function.
Using both will offer a total zoom ratio of 15X.



■ TELE Zoom

Optical zoom TELE : Pressing the ZOOM T button. This will zoom into the subject i.e. the subject will appear to be closer.

Digital zoom TELE : When the maximum (3X) optical zoom is selected, pressing the ZOOM T button activates the digital zoom software. Releasing ZOOM T button stops the digital zooming at the required setting. Once the maximum digital zoom (5X) is achieved, pressing the ZOOM T button will have no effect.





[WIDE zoom] [TELE zoom] [Digital zoom 5.0X]

Setting up the recording function using the camera buttons

■ WIDE Zoom

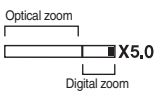
Optical zoom WIDE : Pressing the ZOOM W button. This will zoom out from the subject i.e. the subject will appear further away. Pressing the ZOOM W button continuously will set the camera to its minimum zoom setting i.e. the subject appears at its furthest from the camera.





[TELE zoom] [Optical zoom 2X] [WIDE zoom]

Digital zoom WIDE : When the digital zoom is in operation, pressing the ZOOM W button will reduce the digital zooming in steps. Releasing ZOOM W button stops digital zooming. Pressing the ZOOM W button will reduce the digital zoom and then it will continue to reduce the optical zoom until the minimum setting is reached.





[Digital zoom 5.0X] [TELE zoom] [WIDE zoom]

- Images taken using the digital zoom may take a little longer for the camera to process. Allow time for this to take place.
- If the Zoom buttons are being pressed during the Movie shots, the voice will not be recorded.
- You may notice a decrease in image quality when using the digital zoom.
- To view a clearer digital zoom image, press the shutter button halfway at the maximum optical zoom position and press the zoom T button again.
- The digital zoom can't be activated in some Scene modes (Nightscene, Children, Text, Close up, Firework), DUAL IS mode, movie mode and Face Detection.
- Take care not to touch the lens to avoid taking an unclear image and possibly causing camera malfunction. If the image is dim, turn the camera power off and on again to modify the lens position.
- Take care not to press the lens as this may cause a camera malfunction.
- When the camera is turned on, take care not to touch the camera's moving lens parts as this may cause the resulting image to be dim and unclear.
- Take care not to touch the lens when operating the zoom button.

Setting up the recording function using the camera buttons

Function Description / Info (|□|) / Up button

While the menu is showing, the Up button operates as a direction button.
If the menu screen does not appear, information or function descriptions for the current shooting mode can be accessed through the LCD monitor by pressing the Function description/ Information (|□|) button.



[Shooting screen]



[Information screen]



[Function description screen]

■ Function description

When pressing the Function description button on the information screen mode, detailed descriptions of the functions can be viewed.
The function description can be cancelled by pressing the Function description button again.



[Example of Function description]

Macro (🌷) / Down button

While the menu is showing, press the DOWN button to move from the main menu to a sub menu, or to move down the sub menu. When the menu is not showing, you can use the MACRO (🌷) / DOWN button to take macro pictures.
The distance ranges are shown below. Press the Macro button until the desired macro mode indicator appears on the LCD monitor.



[Auto Focus]



[Macro (🌷)]



[Auto Macro (🌷)]

Setting up the recording function using the camera buttons

■ Types of focus mode and focus range (W : Wide, T : Tele)

(Unit: cm)

Mode	Auto		Program	
Focus Type	Auto macro	Normal	Macro	Normal
Focus range	W : 5~Infinity T : 50~Infinity	W : 80~Infinity T : 80~Infinity	W : 5~80 T : 50~80	W : 80~Infinity T : 80~Infinity

- When the macro mode is selected, be particularly careful to avoid camera shake.
- When you take a picture within 20cm (Wide zoom) or 50cm (Tele zoom) in the Macro mode, select the FLASH OFF mode.
- When you take a picture within the 10cm macro range, the auto-focus on the camera will take longer to set the correct focus distance.

■ Available focusing method, by recording mode

(● : Selectable, ∞ : Infinity focus range)

Mode	Auto macro	Macro	Normal
	●	-	●
	-	●	●
M	-	●	●
	●	-	●
	-	●	●
	-	-	●
	-	●	●

Scene Mode (SCENE)	Auto macro	Macro	Normal
	-	-	●
	-	-	●
	-	-	●
	-	●	-
T	●	-	-
	-	-	●
	-	-	●
	-	-	●
	-	-	∞
	-	-	●

Setting up the recording function using the camera buttons

Focus lock

To focus on a subject not positioned in the centre of the picture, use the focus lock function.

■ Using the Focus Lock

1. Ensure the subject is in the centre of the autofocus frame.
2. Press the **SHUTTER** button halfway. When the green auto focus frame lights up, it means the camera is focused on the subject. To avoid taking an unwanted picture, be careful not to press the shutter button all the way down.
3. With the **SHUTTER** button still pressed down only halfway, move the camera to recompose your picture as desired, and then press the **SHUTTER** button completely to take the picture. If you release your finger from the **SHUTTER** button, the focus lock function will be cancelled.



1. The image to be captured.
2. Press the **SHUTTER** button halfway and focus on the subject.
3. Recompose the picture and fully depress the **SHUTTER** button.

Flash (ϟ) / Left button

When the menu is displayed on the LCD monitor, pressing the **LEFT** button makes the cursor shift to the left tab.
When the menu is not displayed on the LCD monitor, the **LEFT** button operates as the FLASH button.



[Selecting the Auto flash]

■ Selecting the flash mode

1. Press the **Mode** button to select a RECORDING mode with the exception of the Movie mode or the DUAL IS mode.
2. Press the **Flash** button until the desired flash mode indicator is displayed on the LCD monitor.
3. A flash mode indicator will be displayed on the LCD monitor. Use the correct flash to suit the environment.

■ Flash range

(Unit: m)

ISO	Normal		Macro		Auto macro	
	WIDE	TELE	WIDE	TELE	WIDE	TELE
AUTO	0.8 ~ 4.7	0.8 ~ 2.5	0.2 ~ 0.8	0.5 ~ 0.8	0.2 ~ 4.7	0.5 ~ 2.5

Setting up the recording function using the camera buttons

- If you press the shutter button after selecting the Auto, Fill-in, Slow synchro flash, the first flash fires to check the shooting condition (Flash range and Power ratio of flash).
 Do not move the camera until the second flash fires.
- Using the flash frequently will reduce the life of the battery.
- Under normal operating conditions the re-charging time for the flash is usually within 4 seconds. If the battery is weak, the charging time will be longer.
- In the DUAL IS mode, Landscape, Close up, Text, Sunset, Dawn, Firework scene modes and the Movie mode, the flash function will not operate.
- Take photographs within the flash range.
- The image quality is not guaranteed if the subject is too close or highly reflective.
- When taking an image in poorly lit conditions with the flash, there may be a white speck in the captured image. The speck is caused by the flash light reflecting off atmospheric dust.

■ Flash mode indicator

Icon	Flash mode	Description
	Auto flash	If the subject or background is dark, the camera flash will operate automatically.
	Auto & Red eye reduction	If a subject or background is dark, the camera flash will work automatically and will reduce the red-eye effect by using the red-eye reduction function.
	Fill in flash	The flash fires regardless of the available light. The intensity of the flash will be automatically controlled to suit the prevailing conditions.
	Slow synchro	The flash operates with a slow shutter speed to obtain a balanced correct exposure. In poor lighting conditions the camera shake warning indicator () will display on the LCD monitor.
	Flash off	The flash does not fire. Select this mode when capturing images in a place or situation where flash photography is prohibited. When you capture an image in poorly lit conditions, the camera shake warning indicator () will appear on the LCD monitor.
	Red-eye reduction	When a shot with “red eye” is detected, this mode will reduce the red-eye effect automatically.

Setting up the recording function using the camera buttons

■ Available flash mode, by recording mode

(● : Selectable)

Mode	⚡A	👁	⚡	⚡S	⚡	🎨
	●	●			●	●
	●	●	●	●	●	●
M			●		●	
					●	
	●	●	●	●	●	●
		●			●	●
					●	
				●	●	●
		●			●	●
					●	
					●	
T					●	
					●	
					●	
			●			
					●	
	●					

Self-timer (⏲) / Right button

When the menu is displayed on the LCD monitor, pressing the **Right** button makes the cursor shift to the right tab.
When the menu is not displayed on the LCD monitor, the **RIGHT** button operates as the **Self-timer (⏲)** button. This function is used when the photographer would also like to be in the picture.

- If you operate the Self-timer button during the self-timer operation, the self-timer function is cancelled.
- Use a tripod to prevent the camera from shaking.
- In Movie mode, only the 10SEC self-timer will work.
- If [Motion Timer] is set, [Self Portrait] cannot be selected.

Setting up the recording function using the camera buttons

■ Selecting the self-timer

1. Rotate the Mode dial to select a desired RECORDING mode.
2. Press the SELF-TIMER (⏲) / RIGHT button until the desired mode indicator appears on the LCD monitor. A 10 second, 2 second, Double self-timer or Motion timer icon appears on the LCD monitor.
3. When you press the SHUTTER button, the picture will be taken after the specified time has elapsed.





[Selecting the 10 SEC self-timer]

■ Self-timer mode indicator

Icon	Mode	Description
⏲	10SEC self-timer	Pressing the shutter button will allow an interval of 10 seconds before the image is taken.
⏲2S	2SEC self-timer	Pressing the shutter button will allow an interval of 2 seconds before the image is taken.
⏲⏲	Double self-timer	A picture will be taken after about 10 seconds and 2 seconds later a second picture will be taken. When using the flash, the 2-second self-timer may be delayed for longer than 2 seconds depending on the flash charging time.
((⏲))	Motion Timer	The camera detects the subject's movement 6 seconds after pressing the Shutter button, and the picture is taken when the movement stops.

■ Motion Timer

Motion	Icon & Self-timer lamp
Pressing the Shutter button after setting the Motion Timer	Blink (1 second interval)
Detecting the subject's movement	Blink (0.25 second interval)
No movement is detected	Turn on and the image is taken after 2 seconds

■ The Motion Timer flows are as followings. (Movie mode excluded)
Selecting the Motion Timer → Pressing the **Shutter** button → Confirming the composition (Within 6 sec.)*1 → Starting the detection (Swing your hands fully)*2 → Stopping the detection (Do not move) → Taking an image (after 2 sec.)

*1. The camera detects the subject's movement 6 seconds after pressing the **Shutter** button, so confirm the composition within 6 seconds.

*2. Move your body or hands fully.

In the following cases, the Motion Timer may not operate.

- The focus distance is over 3m.
- The exposure is too bright or dark
- In backlight conditions.
- The movement is insignificant
- The movement is detected beyond the center part (50%) of the sensor where the movement is recognized.
- If the camera doesn`t sense any movement for 30 seconds, or the camera doesn't sense stillness after sensing movement.

The detection range of Motion Timer



Setting up the recording function using the camera buttons

MENU / OK button

■ MENU button

- When you press the **MENU** button, a menu related to each camera mode will be displayed on the LCD monitor. Pressing it again will return the LCD to the initial display.
- A menu option can be displayed when the following are selected : MOVIE and STILL IMAGE(AUTO, PROGRAM, MANUAL, DUAL IS, PORTRAIT and SCENE) mode. There is no menu available when the VOICE RECORDING mode is selected.



[Menu off] [Menu on]

■ **OK** button

- When the menu is displayed on the LCD monitor, this button is used for shifting the cursor to the sub menu or for confirming data.

OIS(Optical Image Stabilization)

■ The OIS function reduces blurring caused by camera shake when pressing the shutter button.

1. Press the OIS() button in the selectable mode.



2. The OIS icon will be displayed on the left side.
3. Press the shutter button halfway. The shutter speed and aperture value will be displayed on the LCD monitor. Also This camera activates the stabilizing function.
4. Press the shutter button fully to take a picture.



※ OIS function may not work sufficiently in the following cases.

- To take pictures of a moving subject
- To take pictures with higher digital zoom values
- When camera shake is beyond the camera-shake correction range
- The slower the shutter speed, the lower the camera-shake correction performance.

Setting up the recording function using the camera buttons

- If you operate OIS function using a tripod, the image can be blurred by the vibration of the sensor of the OIS. Turn off the OIS function when you use a tripod.
- If the camera is subjected to an impact it can shake the LCD monitor. If this happens, turn the camera off and then on again. It should then function properly.
- Operate the OIS function when the battery is efficiently charged (,).
- If the low battery level () is showing, OIS can still be set but will not work.
- It is recommended that you don`t use the OIS function in the Macro mode.
- If the OIS function is set when recording video, the function sounds of the OIS may be recorded.

E (Effect) button

It is possible to add special effects to your images by using this button.

- Still image mode : You can select the colour and image adjust menu. In the Auto mode, you can select the [COLOR] menu only.
- Movie mode : You can select the colour menu.

■ Available Effects, by recording mode

(● : Selectable)

Colour ()	●	●	●	●	●	●	●	●
Image Adjust ()		●	●					

- This button will not operate in DUAL IS, Voice recording mode and some scene modes (Nightscene, Text, Sunset, Dawn, Backlight, Fireworks, Beach&Snow).
- Even if the camera is turned off, the effect setting will be preserved.
- To cancel the special effect, select NOR sub menu in the Colour menu and select the OFF sub menu in the Image Adjust menu.

Setting up the recording function using the camera buttons

E (Effect) button : Colour

By using the camera's digital processor, it is possible to add special effects to your images

■ Press the **E** button in an available recording mode.

1. Select a desired sub menu by pressing the **Up/Down** button and press the **OK** button.



Color	Description
NOR	No effect is added to the image.
BW	Captured images will be stored in black and white.
S	Captured images will be stored in a sepia tone (a gradient of yellowish brown colours).
R	Captured images will be stored in a red tone.
G	Captured images will be stored in a green tone.
B	Captured images will be stored in a blue tone.
N	Saves the image in negative mode.
C	Captured image will be saved in set RGB tone.

2. Press the **shutter** button to capture an image.

■ Custom colour : You can change the R (Red), G (Green) and B (Blue) values of the image.



- **Up/Down** button : Selects R, G, B
- **Left/Right** button : Changes the values



❉ In the Auto mode, the Custom Color can't be selected.

Setting up the recording function using the camera buttons

E (Effect) button : Sharpness



- You can adjust the sharpness of the picture you are about to take. You cannot check the sharpness effect on the LCD monitor before you take a picture, because this function is applied only when the captured image is stored on the memory.

1. Press the E button and select [Sharpness]() by pressing the Up/Down button.
2. Change the Sharpness value by pressing the Left/Right button.
3. Press the OK button and the value will be saved. Take a picture pressing the Shutter button.

E (Effect) button : Contrast



- You can change the contrast of the image.

1. Press the E button and select [Contrast]() by pressing the Up/Down button.
2. Change the Contrast value by pressing the Left/Right button.
3. Press the OK button and the value will be saved. Take a picture pressing the Shutter button.

E (Effect) button : Saturation



- By using the camera's digital processor, it is possible to add special effects to your images

1. Press the E button and select [Saturation]() by pressing the Up/Down button.
2. Change the Saturation value by pressing the Left/Right button.
3. Press the OK button and the value will be saved. Take a picture pressing the Shutter button.

Setting up the recording function using the camera buttons

Fn button

■ You can use the **Fn** button to set the following menus.

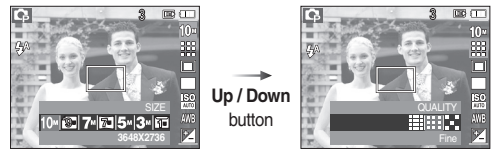
(● : Selectable)

			M			SCENE		Page
Size	●	●	●	●	●	●	●	p.39
Quality /Frame rate	●	●	●	●	●	●	●	p.39
Metering		●	●	●			●	p.40
Drive		●	●			●*1		p.40
ISO		●	●					p.41
White Balance		●	●	●			●	p.42
EV		●		●			●	p.43
Stabilisation							●	p.43

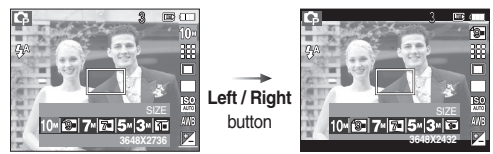
*1. This menu is only available in the Children scene mode ().

How to use the Fn menu

1. Press the Fn button in an available mode.
2. Select a desired menu by pressing the **Up / Down** button. And then a sub menu will be displayed at the bottom left of the LCD monitor.



3. Select a desired menu by pressing the **Left / Right** button and then press the **OK** button.

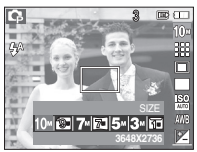


Setting up the recording function using the camera buttons

Size

■ You can select the image size appropriate for your application.

Still image mode	**Icon**	10M	9M	7M	7M	5M	3M	
	Size	3648 x 2736	3648 x 2432	3072 x 2304	3648 x 2052	2592 x 1944	2048 x 1536	1024 x 768
Movie mode	**Icon**	800			640		320	
	Size	800 x 592			640 x 480		320 x 240	



[STILL IMAGE mode]



[MOVIE mode]

- The higher the resolution, the lower the number of shots available because high resolution images require more memory.

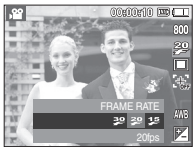
Quality / Frame rate

■ You can select the compression ratio appropriate for your application of the captured images. The higher the compression ratio, the lower the picture quality.

Mode	**STILL IMAGE mode**			**MOVIE mode**		
Icon				30	20	15
Sub menu	Super Fine	Fine	Normal	30FPS	20FPS	15FPS
File Format	jpeg	jpeg	jpeg	avi	avi	avi



[STILL IMAGE mode]



[MOVIE mode]

- This file format complies with the DCF (Design rule for Camera File system).
- JPEG (Joint Photographic Experts Group) :
 JPEG is the image compression standard developed by the Joint Photographic Experts Group. This type of compression is most commonly used for compressing photos and graphics because it can compress the files efficiently.

Setting up the recording function using the camera buttons

Metering

■ If you cannot obtain suitable exposure conditions, you can change the metering method to take brighter pictures.



[Multi] (▣) : Exposure will be calculated based on an average of the available light in the image area. However, the calculation will be biased towards the centre of the image area. This is suitable for general use.

[Spot] (▪) : Only the rectangular area in the centre of the LCD monitor will be metered for light. This is suitable when the subject in the centre is exposed correctly, regardless of the back lighting.

[Center Weighted] (◉) : Exposure will be calculated based on an average of the available light in the image area. However, the calculation will be biased towards the centre of the image area. This is suitable for taking a picture of small objects like flowers or insects.

❊ If the subject is not the centre of the focus area, do not use the spot metering as this may result in an exposure error. In this circumstance, it is better to use exposure compensation.

Drive mode

■ You can select continuous shot, and AEB (Auto Exposure Bracketing).



[Single] (■) : Take one picture only.

[Continuous] (■) : Images will be taken continuously until the **shutter** button is released.

[AEB] (AEB) : Take three pictures in a series in different exposures: standard exposure (0.0EV), short exposure (-1/3EV) and over exposure (+1/3EV). Use this function when you cannot determine the exposure value of subject.

[Motion Capture] (📷) : This takes 6 shots per second, and for max 5 seconds, when the **shutter** is pressed and held down. The maximum number of shots is 30 and the image size is fixed as VGA.

- High resolution and picture quality increases file saving time, which increases stand-by time.
- If the [Continuous], [AEB] or [Motion Capture] sub menu is selected, the flash will be automatically switched off.
- If less than 3 pictures are available in the memory, the [AEB] shooting is not available.
- It is best to use a tripod for the [AEB] shooting as the time to save each image file is longer and blurring caused by camera shake may occur.
- If less than 30 pictures are available in the memory, the [Motion Capture] shooting is not available.

ISO

■ You can select the ISO sensitivity when taking pictures.
The speed or specific light-sensitivity of a camera is rated by ISO numbers.



[Auto] (ISO AUTO) : The camera's sensitivity is automatically changed by variables such as lighting value or subject brightness.

[ISO 80, 100, 200, 400, 800, 1600]
(ISO 80 ISO 100 ISO 200 ISO 400 ISO 800 ISO 1600) :
You can increase the shutter speed while the same amount of light is present, by increasing the ISO sensitivity. However, the image may be saturated with light.
The higher the ISO value, the higher the camera's sensitivity to light and therefore the greater its capacity to take pictures in dark conditions. However, the noise level in the image will increase as the ISO value increases, making the image appear coarse.

Setting up the recording function using the camera buttons

White balance

■ The white balance control allows you to adjust the colours to appear more natural.



Mode	Icon	Description
Auto WB	AWB	The camera automatically selects the appropriate white balance settings, depending on the prevailing lighting conditions.
Daylight		For taking images outside.
Cloudy		For taking images under a cloudy and overcast sky.
Fluorescent_H		For shooting under daylight types of three-way fluorescent lighting.
Fluorescent_L		Shooting under white fluorescent lighting.
Tungsten		For shooting under tungsten (standard light bulb) lighting.
Custom Set		Allows the user to set the white balance according to the shooting conditions.

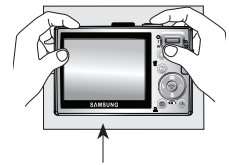
✻ Different lighting conditions may cause a colour cast on your images.

■ Using the Custom White Balance

White balance settings may vary slightly depending on the shooting environment. You can select the most appropriate white balance setting for a given shooting environment by setting up the custom white balance.

1. Select the CUSTOM () menu of the White Balance and place a sheet of white paper in front of the camera so that the LCD monitor shows only white.
2. **MENU/OK** button : selects previous custom white balance.

 Shutter button : saves new custom white balance.



- The custom white balance value will be applied, starting with the next picture you take.
- The user configured white balance will be remain effective until it is overwritten.

Setting up the recording function using the camera buttons

Exposure compensation

This camera automatically adjusts the exposure according to the ambient lighting conditions.
However, you can adjust exposure value by using [EV] menu.

■ Compensating Exposure



1. Press the **Fn** button, and then use the **UP** and **DOWN** buttons to select the exposure compensation icon ().
 The exposure compensation menu bar will appear as shown.
2. Use the **LEFT** and **RIGHT** buttons to set the desired exposure compensation factor.
3. Press the **Fn** button again. The value you set will be saved and the Exposure Compensation setup mode will close.
 If you change the exposure value, the exposure indicator () will be displayed on the bottom of the LCD monitor.

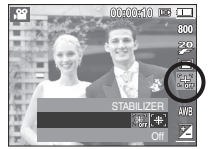
❊ A negative exposure compensation value reduces the exposure. Note that a positive exposure compensation value increases the exposure and the LCD monitor will appear white or you may not get good pictures.

Movie frame stabiliser

This function helps stabilize images captured during movie recording.
You can select this menu only in the MOVIE mode.

[Off] () : Movie frame stabilizer function is disabled.

[On] () : This function helps stabilize images captured during movie recording.



Setting up the recording function using the LCD monitor

You can use the menu on the LCD monitor to set up recording functions.

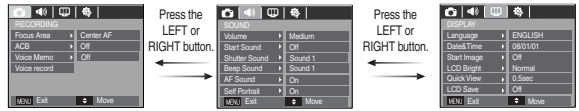
■ The items indicated by [] are default settings.

Menu	Sub menu		Available mode	Page
Focus Area	Face Detection			p.45
	Self Portrait			p.46
	Center AF	Multi AF		p.46 ~p.47
ACB	Off	On		p.47
Voice Memo	Off	On		p.48 ~p.49
Voice Record	-			
Voice Mute	Off	On		p.49
Scene mode	Nightscene	Children		p.49
	Landscape	Close up		
	Text	Sunset		
	Dawn	Backlight		
	Firework	Beach & Snow		

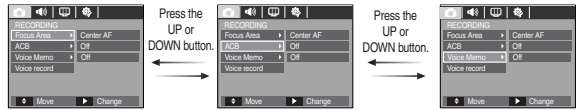
❈ Menus are subject to change without prior notice.

How to use the menu

1. Turn on the camera and press the **MENU** button. A menu for each camera mode appears.
2. Use the **LEFT** and **RIGHT** buttons to navigate through the menus.



3. Use the **UP** and **DOWN** buttons to select a sub menu.



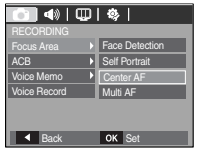
4. Select a sub menu, and then the value you set will be saved. Press the **MENU** button and the menu will disappear.

Setting up the recording function using the LCD monitor

Focus Area

You can select your preferred Focus Area according to the shooting conditions.

1. Press the Menu button in the selectable mode.
2. Select the [RECORDING] menu by pressing the Left/Right button.
3. Select the [Focus Area] menu by pressing the Up/Down button. Then press the Right button again.

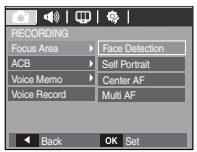


■ Face Detection

This mode detects the face of the subject automatically and then sets the focus and exposure. Select this mode for quick and easy portraits.

※ Selectable modes : Auto, Program, Manual, DUAL IS, Photo Help Guide, Portrait, Children, Beach & Snow

1. Select the [Face Detection] submenu by pressing the Up/Down button.



2. Press the OK button. The Face Detection icon will be displayed on the left side of the LCD monitor



3. The size and position of the auto focus frame is set on the face of the subject automatically.



4. Press the shutter button halfway. The focus frame turns to green when the focus is activated.
5. Press the shutter button fully to take a picture.

- This function can detect up to 9 people.
- When the camera recognises many people at the same time, it will focus on the nearest person.
- The Digital zoom is not activated in this mode.
- The face detection does not work when setting the effect mode.
- When the camera detects a target face, the white colour focus frame will be displayed over the target face and the gray colour focus frame appears over the remaining faces(up to 8). Press the shutter button halfway down to focus on the face and the white focus frame turns green.(Total 9)
- Return to previous AF mode if face detection failed.
- In some conditions this function cannot work properly.
 - When a person wears dark glasses or some part of the face is hidden.
 - When the person being photographed does not look at the camera.
- The maximum available Face Detection range is 3m(Wide).
- The nearer the subject, the faster the camera can recognize the subject.

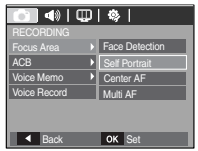
Setting up the recording function using the LCD monitor

■ Self Portrait

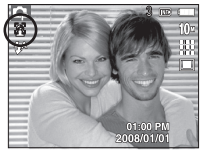
When taking self-portraits, it automatically detects the subject`s face resulting in faster and more convenient self-portraits.

※ Selectable modes : Auto, Program, Manual, DUAL IS, Photo Help Guide, Portrait, Beach & Snow

1. Select the [Self Portrait] submenu by pressing the Up/Down button.



2. Press the OK button. The Self Portrait icon will be displayed on the left side of the LCD monitor.



3. For self-portraits, point the camera lens towards the face of the subject. It automatically detects the subject`s face, and will make a sound to confirm this.

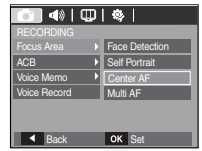


4. Start shooting by pressing the shutter button.

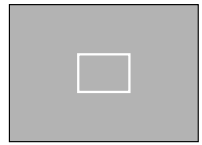
- When locating the face in the center of the screen, it repeatedly emits a faster sound unlike the sounds that are emitted when the face is not in the center.
- The guiding sound can be set using the sound setting menu.(See p.71)
- If [Self Portrait] is set, it is fixed to Macro focus.
- If [Self Portrait] is set, [Motion Timer] cannot be selected.

■ Center AF

1. Select the [Center AF] submenu by pressing the Up/Down button.



2. Press the OK button. The rectangular area in the center of the LCD monitor will be focused.

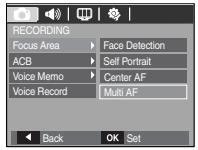


[Center AF]

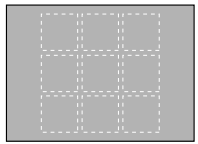
Setting up the recording function using the LCD monitor

■ Multi AF

1. Select the [Multi AF] submenu by pressing the Up/Down button.



2. Press the OK button. This camera selects all the available AF points within the 9 AF points as shown.



[Multi AF]

※ When the camera focuses on the subject, the auto focus frame turns to green. When the camera doesn`t focus on the subject, the auto focus frame turns to red.

ACB

ACB(Auto Contrast Balance) adjusts the contrast automatically. When taking photos in an environment with big exposure differences i.e. backlight or contrast, this function adjusts the brightness automatically and allows the subject to be photographed clearly.

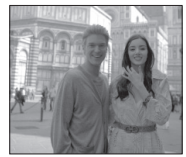


[Off] : cancels ACB function.

[On] : adjusts the contrast automatically.



[ACB Off]



[ACB On]

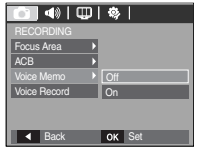
❊ When using the AUTO, PROGRAM, PORTRAIT mode, the ACB function will operate. In Auto and Portrait mode, the ACB function always operates.

❊ When the ACB function is selected, you only can select ISO AUTO, 80, 100 and 200.

Setting up the recording function using the LCD monitor

Voice Memo

You can add your voice-over to a stored still image. (Max. 10 sec.)



- If the voice memo indicator is displayed on the LCD monitor, the setting is completed.
- Press the **shutter** button and take a picture.
 The picture is stored on the memory card.
- Voice memo will be recorded for ten seconds from the moment the picture is stored. In the middle of the sound recording, pressing the **shutter** button will stop the voice memo.





Voice Recording

A voice can be recorded for as long as the available recording time (Max. 10 hour) allows.



Press the **shutter** button to record a voice.

- Press the **shutter** button once and the voice can be recorded. for as long as the available recording time (max:10 hour) allows. The recording time will be displayed on the LCD monitor. The voice will still be recorded if the **shutter** button is released.



[Voice recording mode]

- If you wish to stop recording, press the **shutter** button again.
- File type : *.wav

Setting up the recording function using the LCD monitor

Pausing while recording a voice

Using this function, you can record your favourite voice clips into a voice recording file without having to create multiple voice recording files.

1. Press the **Pause** button () to pause recording.
2. Press the **Pause** button () again to resume the recording.
3. If you wish to stop recording, press the **shutter** button again.



[Voice recording mode]

- A distance of 40cm between you and the camera (microphone) is the best distance to record sound.
- If the camera power is turned off while the voice recording is paused, the voice recording is cancelled.

Recording the movie without voice

You can record the movie without a voice.

Select [On] of [Voice Mute] menu in the Movie mode. () icon will appear on the LCD monitor. Press the **Shutter** button and a movie without voice will record for as long as the memory capacity allows.





SCENE mode

Use the menu to easily configure optimal settings for a variety of shooting situations.

Press the **MENU** button and select a desired sub menu.

❊ Refer to page 23 for more information.



[SCENE Mode Menu]

Starting play mode

Turn the camera on and select Play mode by pressing the **play mode** button (▣). The camera can now play back the images stored in the memory.

If the memory card is inserted in the camera, all the camera functions apply only to the memory card.

If the memory card is not inserted in the camera, all the camera functions apply only to the internal memory.

Playing back a still image

1. Select the PLAY mode by pressing the **play mode** button (▣).



2. The last image stored on the memory is displayed on the LCD monitor.



3. Select an image that you want to view by pressing the **Left / Right** button.

❉ Press and hold the **Left** or **Right** button to play back the images quickly.



Playing back a movie

1. Select the recorded movie that you want to play back by using the **Left/Right** button.
2. Press the **play & pause** button (▶/II) to play back a movie file.
 - To pause a movie file while playing it back, press the **play & pause** button (▶/II) again.
 - Pressing the **play & pause** button (▶/II) again will cause the movie file to restart.
 - To rewind the movie while it is playing, press the **Left** (REW)button. To fast forward the movie, press the **Right** (FF)button.
 - To stop playback of the movie, press the **play & pause** button (▶/II), and then press the **Left** or **Right** button.





Starting play mode

Movie capture function

You can capture still images from the movie.

■ How to capture the movie

1. Press the **Play / Pause** button () while playing the movie. Then press the **E** button.
2. The paused movie is saved in a new file name.



[Paused]



[Press the E button]

❊ The captured movie file is the same size as the original movie (800x592, 640x480, 320x240).

❊ When you press the **E** button at the beginning of the movie, the first frame of the movie will be saved as a still image.

On camera movie trimming

You can extract desired frames of movie during the movie play back.
If the running time is under 10 seconds, the movie can't be trimmed.

1. Press the **Pause** button () at the point of the movie where you want to start extracting.
2. Press the **T** button.
3. Press the **Play & Pause** button () and the extracted range will be displayed on the status bar.
4. Press the **Play & Pause** button () once more at the point where you wish the extracted file to stop.
5. Press the **T** button and a confirmation window will be displayed.
6. Select a desired sub menu by pressing the **Up/Down** button and press the **OK** button.

 [No] : The movie trimming will be cancelled.

 [Yes] : The extracted frames are saved as a new file name.







- If you don't specify the ending point of the movie, the trimming confirmation window will be displayed at the point of the last frame.

Starting play mode

Playing back a recorded voice



1. Select the recorded voice that you want to play back by using the **Left/Right** button.
2. Press the **play & pause** button () to play back a recorded voice file.
 - To pause a recorded voice file, while playing it back, press the **play & pause** button () again.
 - To resume playback of the voice file, press the **play & pause** button.
 - To rewind the voice file while it is playing, press the **Left** (REW)button.
 To fast forward the voice file, press the **Right** (FF)button.
 - To stop playback of the voice memo, press the **play & pause** button and then press the **MENU/OK** button.

Playing back a voice memo

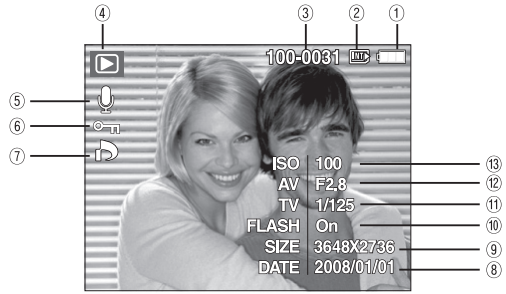




1. Select a still image that has the voice memo.
2. Press the **play & pause** button () to play back the voice memo.
 - To pause the voice memo, while playing it back, press the **play & pause** button () again.
 - To resume playback of the voice memo, press the **Down** button.

LCD monitor Indicator in play back mode

The LCD monitor displays shooting information about the displayed image.



No.	Description	Icon	Page
1	Battery		p.15
2	Memory card indicator	/	-
3	Folder name & File name	100-0031	p.76
4	Playback mode		p.50
5	Voice Memo		p.64
6	Protect		p.64
7	DPOF		p.65
8	Recording date	2008/01/01	p.73
9	Image size	3648x2736 ~ 320x240	p.39
10	Flash	On/Off	p.30
11	Shutter speed	8 ~ 1/1,500	p.21
12	Aperture value	F2.8 ~ F12.9	p.21
13	ISO	80 ~ 1600	p.41

Setting up the play back function using the camera buttons

In Play mode, you can use the buttons on the camera to conveniently set up the Play mode functions.

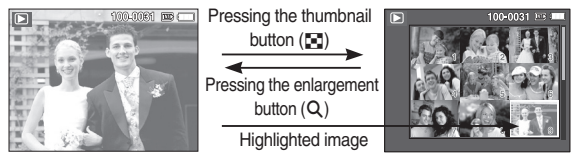
Thumbnail () / Enlargement () button

You can view multiple pictures, enlarge a selected picture, and crop and save a selected area of an image.

■ Thumbnail display

1. While an image is displayed on full screen, press the **thumbnail** button.
2. The thumbnail display will highlight the image that had been showing at the time the thumbnail mode was selected.
3. Press the 5 function button to move to a desired image.
4. To view an image separately, press the enlargement button.





[Highlighted image] [Thumbnail display mode]

Setting up the play back function using the camera buttons

■ Image enlargement

1. Select an image that you want to enlarge and press the enlargement button.
2. Different parts of the image can be viewed by pressing the 5 function button.
3. Pressing the **thumbnail** button will zoom back to the original full sized image.
 - You can tell whether the image displayed is an enlarged view by checking the image enlargement indicator shown at the top left of the LCD monitor. (If the image is not an enlarged view, the indicator will not be displayed.) You can also check the area of enlargement.
 - Movies and WAV files can't be enlarged.
 - If an image is enlarged, a loss of quality may occur.





■ The maximum enlargement rate in proportion to the image size

Image size	10M	9M	7M	7M	5M	3M	1M
Maximum enlargement	X11.4	X10.1	X9.6	X9.5	X8.1	X6.4	X3.2

■ Trimming : You can extract part of the image that you want and save it separately.

1. Select an image that you want to enlarge and press the enlargement button.
 Press the **MENU/OK** button and a message will be displayed.
2. Select a desired sub menu by pressing the **Up / Down** button and press the **OK** button.
 - [No] : The trimming menu will disappear.
 - [Yes] : The trimmed image will be saved as a new file name, and appear on the LCD monitor.

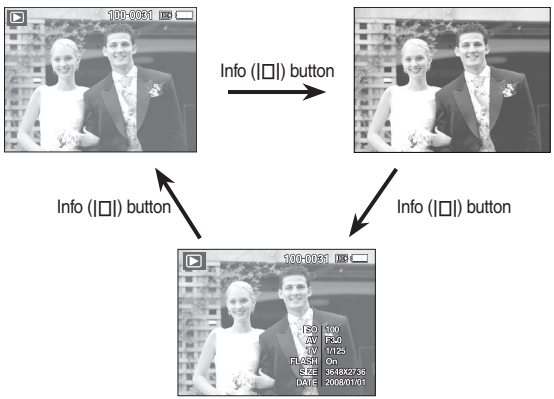


❊ If there is not enough memory space to save the trimmed image, the image can't be trimmed.

Setting up the play back function using the camera buttons

Info (|□|) / Up button

When the menu is displayed on the LCD monitor, the **UP** button operates as a direction button.
When the menu is not displayed on the LCD monitor, pressing the **Info** button will display image information on the LCD monitor.



Play & Pause () / Down button

In Play mode, the **play & pause () / down** button works as follows:

- If the menu is displayed
 Press the **DOWN** button to move from the main menu to a sub menu, or to move down the sub menu cursor.
- If a still image with a voice memo, a voice file, or a movie is playing
 - In Stop mode : Plays a still image with a voice memo, a voice file, or a movie.
 - During playback : Temporarily stops playback.
 - In Pause mode : Resumes playback



[Voice recording is stopped] [Voice recording is playing] [Voice recording is paused]

Setting up the play back function using the camera buttons

Left / Right / Menu / OK button

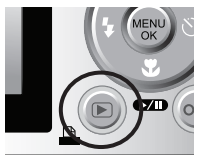
LEFT / RIGHT / MENU / OK buttons activate the following.

- **LEFT** button : While the menu is showing, the **LEFT** button operates as a direction button. While the menu is not showing, press the **LEFT** button to select the previous image.
- **RIGHT** button : While the menu is showing, the **RIGHT** button operates as a direction button. While the menu is not showing, press the **RIGHT** button to select the next image.
- **MENU** button : When you press the **MENU** button, the play mode menu will be displayed on the LCD monitor. Pressing it again will return the LCD to the initial display.
- **OK** button : When the menu is displayed on the LCD monitor, the **OK** button is used for confirming data that is changed by using the 5 function button.

Printer () button

When the camera is connected to a PictBridge printer, you can print images by pressing the **Printer** button.





Delete () button

This deletes images stored on the memory card.

1. Select an image that you want to delete by pressing the **Left / Right** button and press the **DELETE** () button.



[Single Image]



[Thumbnail Image]

2. To delete images, press the **T** button.
 - **Left/Right** button : Selects images
 - **T** button : checks for deletion
 - **OK** button : confirm the selection



3. Select the sub menu values by pressing the **Up / Down** button and then press the **OK** button.
 - If [No] is selected : cancels “Delete Image”.
 - If [Yes] is selected : deletes the selected images.

Setting up the play back function using the camera buttons

E (Effect) button : Resize

Change the resolution (size) of pictures taken. Select [Start image] () to save an image to be the start-up image.

1. Press the **play** mode button and press the E button.
2. Press the **Left / Right** button and select the [RESIZE] () menu tab.
3. Select a desired sub menu by pressing the **Up / Down** button and press the **OK** button.



■ Image Resize Types

(● : Selectable)

	7M	5M	3M	1M	
10M	●	●	●	●	●
7M		●	●	●	●
5M			●	●	●
3M				●	●
1M					●

	7M	5M	3M	1M	
9M	●	●	●	●	

	5M	2M	1M	
7M	●	●	●	

- A large sized image can be made smaller, but not vice versa.
- Only JPEG images can be resized. Movie (AVI), Voice recording (WAV) files can't be resized.
- You can change the resolution of only those files compressed in the JPEG 4:2:2 format.
- The resized image will have a new file name. The [Start Image] ()image is stored not on the memory card but on the internal memory.
- If a new user image is saved, one of the two user images will be deleted in order.
- If the memory capacity is insufficient to store the resized image, a [Memory Full!] message will appear on the LCD monitor and the resized image can't be stored.

Setting up the play back function using the camera buttons

E (Effect) button : Rotating an image

You can rotate the stored images by various degrees.

1. Press the play mode button and press the E button.
2. Press the **LEFT / RIGHT** button and select the [ROTATE] () menu tab.
3. Select a desired sub menu by pressing the **UP / DOWN** button.





[: Right 90˚]
: Rotate picture in a clock-wise direction



[: Left 90˚]
: Rotate picture in a counter-clock-wise direction



[: 180˚]
: Rotate picture 180 degrees



[: Horizontal]
: Rotate picture horizontally



[:Vertical]
: Rotate picture vertically

❊ If you display the rotated image on the LCD monitor, empty spaces may appear to the left and right of the image.

E (Effect) button : Colour

It is possible to add colour effects to your images by using this button.

1. Press the play mode button and press the **E** button.
2. Select () menu tab by pressing the **Left / Right** button .
3. Select a desired sub menu by pressing the **Up / Down** button and press the **OK** button.



Colour	Description
BW	Captured images will be stored in black and white.
S	Captured images will be stored in a sepia tone (a gradient of yellowish brown colours).
R	Captured images will be stored in a red tone.
G	Captured images will be stored in a green tone.
B	Captured images will be stored in a blue tone.
N	Saves the image in negative mode.
C	Captured images will be stored in set RGB tone.

4. The changed image is saved as a new file name.

Setting up the play back function using the camera buttons

■ Custom colour

You can change the R (Red), G (Green) and B (Blue) values of the image.



- **OK** button : Save the changed value of Custom Color
- **Up / Down** button : Selects R, G, B
- **Left / Right** button : Change the values



E (Effect) button : Image editing

1. Press the play back button and press the **E** button.
2. Select () menu tab by pressing the **Left/Right** button.

ACB

ACB(Auto Contrast Balance) is to adjust the contrast automatically.

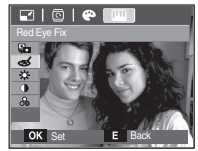
1. Select () by pressing the **Up/Down** button and press the **OK** button.
2. The image is saved as a new file name.



Red eye Removal

Red eye effect can be removed from the captured image.

1. Select () by pressing the **Up/Down** button and press the **OK** button.
2. The image is saved as a new file name.



Brightness control

You can change the brightness of the image.

1. Select () by pressing the **Up/Down** button and a bar for selecting the brightness will be displayed.
2. Change the brightness by pressing the **Left/Right** button.
3. Press the **OK** button and the image will be saved as a new file name.



Setting up the play back function using the camera buttons

Contrast control

You can change the contrast of the image.



1. Select (◑) by pressing the **Up/Down** button and a bar for selecting the contrast will be displayed.
2. Change the contrast by pressing the **Left/ Right** button.
3. Press the **OK** button and the image will be saved as a new file name.

Saturation control

You can change the saturation of the image.



1. Select (🎨) by pressing the **Up/Down** button and a bar for selecting the saturation will be displayed.
2. Change the saturation by pressing the **Left/Right** button.
3. Press the **OK** button and the image will be saved as a new file name.

Setting up the play back function using the LCD monitor

PLAY mode functions can be changed by using the LCD monitor.
In the PLAY mode, pressing the **MENU** button displays the menu on the LCD monitor. The menus you can set up in Play mode are as follows. To capture an image after setting up the play menu, press the **PLAY** mode button or **shutter** button.

Menu Tab	Main Menu	Sub Menu	Secondary Menu		Page
MULTI SLIDE SHOW (▶)	Show	Play / Repeat Play	-		p.62
	Images	All	-		p.62
		Date	-		
		Select	-		
	Effect	Off	Basic	Classic	p.63
		Memories	Rhythmic	Delight	
	Interval	1, 3, 5, 10 sec	-		p.63
	Music	Off	Panorama		p.63
		First Smile	Remembrance		
PLAY BACK (▶)	Voice Memo	Off	-		p.64
		On	-		
	Protect	Select	-		p.64
		All	Lock / Unlock		
	Delete	Select	-		p.65
		All	No / Yes		
	DPOF	Standard	Select / All Pics / Cancel		p.65
		Index	No / Yes		
		Size	Select / All Pics / Cancel		
	Copy To Card	No	-		p.67
		Yes	-		

Setting up the play back function using the LCD monitor

This menu is available while the camera is connected to a PictBridge supporting printer (direct connection to the camera, sold separately) with a USB cable.

Menu Tab	Main Menu	Sub Menu	Secondary Menu	Page
	Images	One Pic	-	p.69
		All Pics	-	
	Size	Auto	-	p.70
		PostCard	-	
		Card	-	
		4X6	-	
		L	-	
		2L	-	
		Letter	-	
		A4	-	
		A3	-	
	Layout	Auto	-	
		Full	-	
		1	-	
		2	-	
		4	-	
		8	-	
		9	-	
		16	-	
		Index	-	

Menu Tab	Main Menu	Sub Menu	Secondary Menu	Page
	Type	Auto	-	p.70
		Plain	-	
		Photo	-	
		FastPhoto	-	
	Quality	Auto	-	
		Draft	-	
		Normal	-	
		Fine	-	
	Date Print	Auto	-	
		Off	-	
		On	-	
	File Name	Auto	-	
		Off	-	
		On	-	
	Reset	No	-	
		Yes	-	

※ Menus are subject to change without prior notice.

Multi slide show ()

Images can be displayed continuously at pre-set intervals. You can view the slide show by connecting the camera to an external monitor.

1. Press the **play mode** button and press the **menu** button.
2. Press the **LEFT / RIGHT** button and select the [MULTI SLIDE SHOW] () menu tab.

Start the multi slide show

The multi slide show can start only in the [Show] menu.

1. Use the **Up / Down** buttons to select the [Show] menu and press the **Right** button.
2. Select a desired sub menu by pressing the **Up / Down** button.



[Play] : The multi slide show is closed after one cycle.

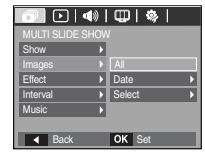
[Repeat Play] : The multi slide show is repeated until cancelled.

3. Press the **OK** button and the multi slide show will be started.
 - To pause the multi slide shown while playing it back, press the **play & pause**() button again.
 - Pressing the **play & pause**() button again will cause the multi slide show restart.
 - To stop playback of the multi slide show, press the **play & pause**() button, and then press the **MENU / OK** button.

Selecting Images

You can select image to view

1. Use the **Up / Down** buttons to select the [Image] menu and press the **Right** button.
2. Select a desired sub menu by pressing the **Up / Down** button.



[All] : All images saved in the Memory are played back.

[Date] : Images taken in a specified date are played back. Press the Right button and choose the date.

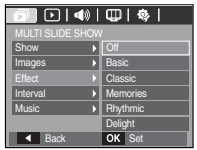
[Select] : Play only the selected images. If you press the Right button, you can select the desired images to play back. The selected image can be saved as [Select1], [Select2] and [Select3]. If you save the selected image with the [New Select] command, it will be saved as [Select1]. But when a new image is saved again using [New Select], the former image which had been saved as [Select1] will be saved as [Select2] automatically. You can change and cancel the images which were saved as [Select1], [Select2] and [Select3].

3. Press the **OK** button and the settings are saved.
4. Select [Play] or [Repeat Play] in the [Show] menu to start the multi slide show.

Multi slide show ()

Configure multi slide show effects

Unique screen effects can be used for the multi slide show.



1. Select the [Effect] sub menu by pressing the **UP / DOWN** button and press the **RIGHT** button.
2. Use the **Up / Down** button to select the type of effect.

 [Off] : No effect.

 [Basic] : Fade In/Out effect is added and the Images are displayed at set intervals.

 [Classic] : You can add noise to the image to give a classic feel.

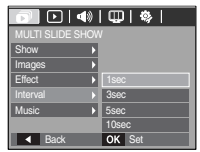
 [Memories] : Scratches are added to give an old movie effect.

 [Rhythmic] : Images are displayed with a special effect.

 [Delight] : Images are displayed with a special effect.
3. Press the **OK** button to confirm the setting.

Setting play interval

Set the multi slide show play interval.

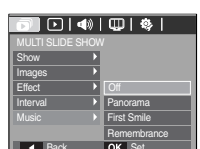


1. Select the [Interval] sub menu by pressing the **UP / DOWN** button and press the **RIGHT** button.
2. Use the **Up / Down** buttons to select the desired interval.
3. Press the **OK** button to save the configuration.

- The loading time depends on the image size and quality.
- While the multi slide show is playing, only the first frame of a MOVIE file is displayed.
- While the multi slide show is playing, the voice recording file will not be displayed.
- The interval menu functions in the [Off], [Basic] and [Classic] menu only.

Setting Background Music

Set the multi slide show music.

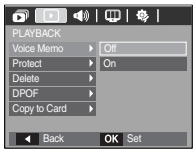


1. Select the [Music] sub menu by pressing the **UP / DOWN** button and press the **RIGHT** button.
2. Use the **Up / Down** buttons to select the desired Music.
3. Press the **OK** button to save the configuration.

Playback (▶)

Voice memo

You can add your voice to a stored still image.



[Voice memo menu]



[Ready for recording]



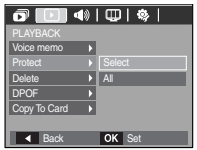
[Voice is recording]

- Press the **shutter** button to take a picture. The images are saved on the memory. After saving the image, the voice will record for 10 seconds.
- To stop the recording, press the **shutter** button.

Protecting images

This is used to protect specific shots from being accidentally erased (Lock). It also unprotects images that have been previously protected (Unlock).

1. Press the **Up / Down** button and select the [Protect] menu tab. And then press the **Right** button.
2. Select a desired sub menu by pressing the **UP / DOWN** button and press the **OK** button.



[Select] : Selection window for an image to be protected / released is displayed.

- **Up / Down / Left / Right** : Select an image
- Zoom **W / T** Button : Protect / release the image
- **OK** button : Your changes will be saved and the menu will disappear.



[All] : Protect / release all saved images

- If you protect an image, the protect icon (🔑) will be displayed on the LCD monitor.
 (An unprotected image has no indicator)
- An image in LOCK mode will be protected from the [Delete] functions, but will NOT be protected from the [Format] function.

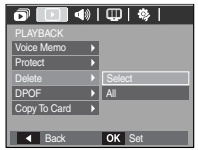




Deleting images

This deletes images stored on the memory. If the memory card is inserted, images on the memory card are deleted. Otherwise, images in the internal memory are deleted.

1. Press the **Up / Down** button and select the [Delete] menu tab. And then press the **Right** button.
2. Select a desired sub menu by pressing the **UP / DOWN** button and press the **OK** button.



[Select] : Selection window for an image to be deleted is displayed.

- **Up/ Down/ Left/ Right** : Select an image
- Zoom **T** Button : Select the image for deletion. (V mark)
- **OK** Button : Press the **OK** button to display the confirmation message. Select the [Yes] menu and press the **OK** button to delete V marked images.



[All] : Displays confirmation window. Select the [Yes] menu and press the **OK** button to delete all unprotected images. If there aren't protected images, all the images are deleted and a [No Image!] message will appear.



3. After deletion, the screen will be changed to the play mode screen.

- Of all the files stored in the memory card, the unprotected files in the DCIM subfolder will be deleted. Remember that this will permanently delete unprotected images. Important shots should be stored on a computer before deletion takes place. The startup image is stored in the camera's internal memory (i.e., not on the memory card) and it will not be deleted even if you delete all files on the memory card.

DPOF

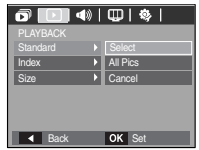
- DPOF(Digital Print Order Format) allows you to embed printing information on your memory card's MISC folder. Select the pictures to be printed and how many prints to make.
- The DPOF indicator will appear on the LCD monitor when an image that has DPOF information plays back. Images can then be printed on DPOF printers, or at an increasing number of photo labs.
- This function is not available for Movies and Voice recording files.
- When the wide angle image is printed as a wide angle print, 8% of the left and right side of the image might not be printed. Check that your printer can support the wide angle image when you print the image. When you print the image at a photo lab, request that the image is printed as a wide angle image. (Some photo labs may not support the wide angle size print.)

Playback (▶)

■ Standard

This function allows you to embed printing quantity information on a stored image.

1. Press the **Up / Down** button and select the [DPOF] menu tab. And then press the Right button.
2. Press the **Right** button again and [Standard] sub menu will display.



3. Select a desired sub menu by pressing the **Up / Down** button and press the **OK** button.

 [Select] : Selection window for an image to print is displayed.

 - **Up / Down / Left / Right** : Select an image to print.
 - Zoom **W / T** Button : Select the number of prints.

 [All Pics] : Configure number of prints for all pictures except movie and voice files.

 - **W / T** button : Select a number of prints

 [Cancel] : Cancel the print setup.





4. Press the **OK** button to confirm the setting.
 If an image carries DPOF instructions, the DPOF indicator (🖐) will show.

■ Index

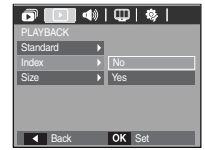
Images (except for movies and voice file) are printed as index type.

1. Press the **Up / Down** button and select the [DPOF] menu tab. And then press the **Right** button.
2. Press the **Right** button again and [Index] sub menu will display.
3. Select a desired sub menu by pressing the **UP / DOWN** button.

 If [No] is selected : Cancel the index print setting.

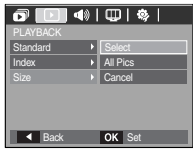
 If [Yes] is selected : The image will be printed in index format.

4. Press the **OK** button to confirm the setting.



■ Print size

You can specify the print size when printing images stored on the memory card. The [Size] menu is available only for DPOF 1.1 compatible printers.



1. Press the **Up / Down** button and select the [DPOF] menu tab. And then press the **Right** button.
2. Press the **Right** button again and select the [Size]. Sub menu will display.
3. Select a desired sub menu by pressing the **UP / DOWN** button and press the **OK** button.



[Select] : Selection window to change the printed size of the image is displayed.

- **Up / Down / Left / Right** : Select an image.
- Zoom **W / T** Button : Change the print size.
- **OK** button : Your changes will be saved and the menu will disappear.



[All Pics] : Change print size of all saved images.

- **W / T** button : Select a print size.
- **OK** button : Confirm the changed setting.

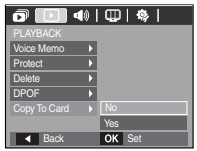
[Cancel] : Cancel all of the print size settings.

❉ DPOF [Size] secondary menu : Cancel, 3X5, 4X6, 5X7, 8X10

- Depending on the manufacturer and print model, cancelling the printing may take a little longer for the printer to process.

Copy To Card

This enables you to copy image files, movies and voice recording files to the memory card.



1. Select the [Copy To Card] menu tab by pressing the **Up / Down** button. And then press the **Right** button.
2. Select a desired sub menu by pressing the **UP/ DOWN** button and press the **OK** button.
 - [No] : Cancels “Copy to Card”.
 - [Yes] : All images, movies and voice recording files saved in the internal memory are copied to the memory card after the [Processing!] message is displayed. After copying has been completed, the screen will return to play mode.

Playback (▶)

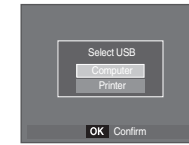
- [Copy To Card] will not be selected without inserting a memory card.
- If there is not enough space available in the memory card to copy saved images in the internal memory (10 MB), the [Copy To Card] command will copy only some of the images and display [Memory Full!] message. Then the system will return to the playback mode. Please be sure to delete any unnecessary files to free up space before inserting the memory card into the camera.
- When you move the images that are stored in the internal memory by doing [Copy To Card] to the card, the next number of file names will be created in the card to avoid duplication of the file name.
 - When the [Reset] of the [File] setup menu is set : The copied file names start from after the last stored file name.
 - When the [Series] of the [File] setup menu is set : The copied file names start from after the last captured file name. After completing [Copy To Card], the last stored image of the last copied folder is displayed on the LCD monitor.

PictBridge

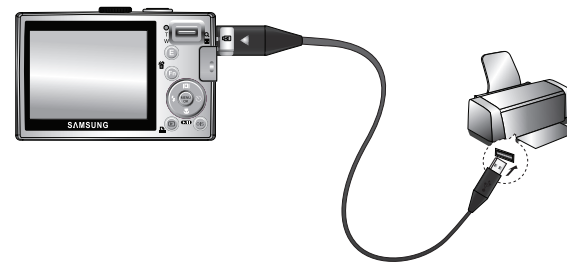
You can use the USB cable to connect this camera to a printer that supports PictBridge (sold separately) and print the stored images directly.
Movies and voice files cannot be printed.

■ Setting up the camera for connection to the printer

1. Connect the camera and printer with USB cable.
2. Select the [Printer] menu by pressing **Up / Down** button and press the **OK** button.



■ Connecting the Camera to a Printer



✻ If the [USB] menu is set to the [Computer], you cannot connect a Pictbridge compatible printer to the camera through USB cable with [Connecting Computer] message. In this case, remove the cable and repeat step 1 and 2.

PictBridge

■ Easy printing

When you connect the camera to printer in the Play back mode, you can print a picture easily.

- Pressing the **Left / Right** button : Selects a previous / next image.
- Pressing the **printer** (🖶) button : Currently displayed image will be printed with the printer's default setting.

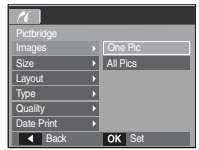


PictBridge : Picture Selection

You can select images you want to print.

■ Setting the Number of Copies to Print

1. Press the **Menu** button and the PictBridge menu will be displayed.
2. Use the **Up / Down** buttons to select the [Images] menu and press the **Right** button.
3. Use the **Up / Down** buttons to select a desired sub menu and press the **OK** button.



- Select [One Pic] or [All Pics]. A screen where you can set the number of copies to print will appear as shown below.



[When [One Pic] is selected]



[When [All Pics] is selected]

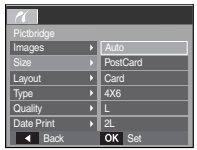
- Press the **Up / Down** button to select the number of prints.
- When [One Pic] is selected : Use the **Left / Right** button to select another picture. After selecting another picture, select the number of prints for another picture.
- After setting the number of prints, press the **OK** button to save.
- Press the **Shutter** button to return to the menu without setting the number of prints.

4. Press the **Print** (🖶) button and images will be printed.

PictBridge : Print Setting

You can select the Paper Size, Print Layout, Paper Type, Print Quality, Date Print, and File Name Print menus for printed pictures.

1. Press the **Menu** button and the **PictBridge** menu will be displayed.
2. Use the **Up / Down** buttons to select the desired menu, and then press the **Right** button.
3. Use the **Up / Down** buttons to select the desired sub menu value, and then press the **OK** button.



Menu	Function	Sub menu
Size	Set the size of the printing paper	Auto, PostCard, Card, 4×6, L, 2L, Letter, A4, A3
Layout	Set the number of pictures to be printed on a sheet of paper	Auto, Full, 1, 2, 4, 8, 9, 16, Index
Type	Set the quality of the printing paper	Auto, Plain, Photo, FastPhoto
Quality	Set the quality of the picture to be printed	Auto, Draft, Normal, Fine
Date Print	Set whether to print the date	Auto, Off, On
File Name	Set whether to print the file name	Auto, Off, On

❉ Some menu options are not supported on all printers.
If not supported, the menus are still displayed in the LCD, but are not selectable.

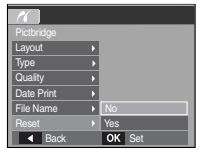
PictBridge : Reset

Initialises user-changed configurations.

1. Use the **Up / Down** buttons to select the [Reset] menu tab. And then press the **Right** button.
2. Use the **Up / Down** buttons to select the desired sub menu value, and then press the **OK** button.

 If [No] is selected : Settings will not be reset.

 If [Yes] is selected : All print and image settings will be reset.



❉ Default print setting varies depending on the printer manufacturer.
For your printer's default setting, refer to the user's guide that came with your printer.

Sound menu

In this mode, you can set up sound settings. You can use the setup menu in all camera modes, except Voice Recording mode.

■ The items indicated by [] are default settings.

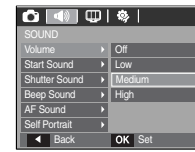
Mode	Menu	Sub Menu	Available mode	Page
(SOUND)	Volume	Off		p.71
		Low		
		[Medium]		
		High		
	Start Sound	[Off]		p.71
		Sound 1		
		Sound 2		
		Sound 3		
	Shutter Sound	Off		p.71
		[Sound 1]		
		Sound 2		
		Sound 3		
	Beep Sound	Off		p.72
		[Sound 1]		
		Sound 2		
		Sound 3		
	AF Sound	Off		p.72
		[On]		
	Self Portrait	Off		p.72
		[On]		

Sound (🔊)

Volume

You can select a volume of start up sound, shutter sound, beep sound and AF sound.

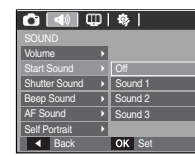
- [Volume] sub menu : [Off], [Low], [Medium], [High]



Start up Sound

You can select the sound that is activated whenever the camera is turned on.

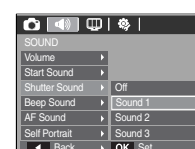
- [Start Sound] sub menu : [Off], [Sound 1], [Sound 2], [Sound 3]



Shutter sound

You can select the shutter sound.

- [Shutter Sound] sub menu : [Off], [Sound 1], [Sound 2], [Sound 3]

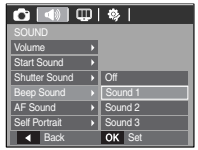


Sound (🔊)

Beep Sound

If you set sound to ON, various sounds will be activated for camera startup, when buttons are pressed, so that you can be aware of the camera operation status.

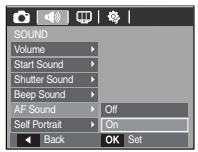
- [Beep Sound] sub menu : [Off], [Sound 1], [Sound 2], [Sound 3]



AF Sound

If you set AF sound to ON, AF sound will be activated when a subject is focused so that you can be aware of the camera operation status.

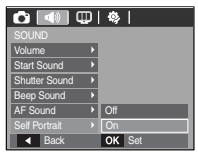
- [AF Sound] sub menu : [Off], [On]



Self Portrait

This occurs when it automatically detects the subject's face when taking a self-portrait.

- Self-portraits can be set by using the [Off] and [On] menu.



Setup menu

In this mode, you can set up basic settings. You can use the setup menu in all camera modes, except Voice Recording mode.

■ The items indicated by ▭ are default settings.

Menu tab	Main menu	Sub menu			Page
(DISPLAY)	Language	ENGLISH	한국어	FRANÇAIS	p.73
		DEUTSCH	ESPAÑOL	ITALIANO	
		简体中文	繁體中文	日本語	
		РУССКИЙ	PORTUGUÊS	DUTCH	
		DANSK	SVENSKA	SUOMI	
		ไทย	BAHASA	عربي	
		Čeština	POLSKI	Magyar	
		Türkçe			
	Date & Time	08/01/01		13:00	p.73
		yyyy/mm/dd		Off	
		dd/mm/yyyy		mm/dd/yyyy	
		World time	London	Rome,Paris,Berlin	
			Athens, Helsinki	Moscow	
			Teheran	Abu Dhabi	
			Kabul	Tashkent	
			Mumbai, New Delhi	Kathmandu	
			Almaty	Yangon	
			Bangkok, Jakarta	Beijing, Hong Kong	
			Seoul, Tokyo	Darwin, Adelaide	
			Guam, Sydney	Okhotsk	

Setup menu

Menu tab	Main menu	Sub menu			Page
(DISPLAY)	Date & Time	World time	Wellington, Auckland	Samoa, Midway	p.73
			Honolulu, Hawaii	Alaska	
			LA, San Francisco	Denver, Phoenix	
			Chicago, Dallas	New York, Miami	
			Caracas, La Paz	Newfoundland	
			Buenos Aires	Mid-Atlantic	
			Cape Verde	-	
	Start Image	Off		Logo	p.74
		User Image		-	
	LCD Bright	Auto		Dark	p.74
		Normal		Bright	
	Quick View	Off		0.5, 1, 3 sec	p.75
	LCD Save	Off		On	p.75
(SETTINGS)	Format	No		Yes	p.75
	Reset	No		Yes	p.76
	File	Reset		Series	p.76
	Imprint	Off		Date	p.77
		Date&Time		-	
	Power Off	Off		1, 3, 5, 10 min	p.77
	Video Out	NTSC		PAL	p.78
	AF Lamp	Off		On	p.79

✻ Menus are subject to change without prior notice.

DISPLAY (DISPLAY)

LANGUAGE

There is a choice of languages that can be displayed on the LCD monitor. Even if the battery is removed and inserted again, the language setting will be preserved.

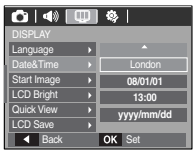
- LANGUAGE sub menu
 : English, Korean, French, German, Spanish, Italian, S.Chinese, T.Chinese, Japanese, Russian, Portuguese, Dutch, Danish, Swedish, Finnish, Thai, Bahasa (Malay / Indonesian), Arabic, Czech, Polish, Hungarian and Turkish.



Setting up the Date / Time / Date type

You can change the date and time that will be displayed on the captured images and set up the date type.

- Setting Date/ Time & Selecting Date Format
 RIGHT button : Selects the world time/ year/ month/day/hour/ minute and date type.
 LEFT button : Moves the cursor to the [Date&Time] main menu if the cursor is at the first item of the date and time setup. In all other cases, the cursor will be shifted to the left of its current position.
 UP and **DOWN** buttons : Changes the setting value
- Date type : [yyyy/mm/dd], [Off], [dd/mm/yyyy], [mm/dd/yyyy]

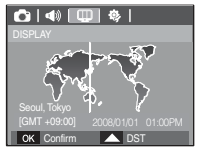


DISPLAY (🖵)

■ World Time

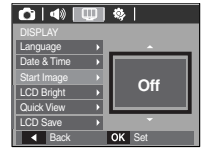
- Available cities

: London, Cape Verde, Mid-Atlantic, Buenos Aires, Newfoundland, Caracas, La Paz, NewYork, Miami, Chicago, Dallas, Denver, Phoenix, LA, San Francisco, Alaska, Honolulu, Hawaii, Samoa, Midway, Wellington, Auckland, Okhotsk, Guam, Sydney, Darwin, Adelaide, Seoul, Tokyo, Beijing, Hong Kong, Bangkok, Jakarta, Yangon, Almaty, Kathmandu, Mumbai, New Delhi, Tashkent, Kabul, Abu Dhabi, Teheran, Moscow, Athens, Helsinki, Rome, Paris, Berlin



Start up image

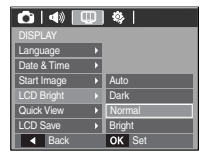
You can select the image that is first displayed on the LCD monitor whenever the camera is turned on.



- Sub menus : [Off], [LOGO], [User Image]
- Use a saved image for the start-up image with the [Start Image] in the [RESIZE] menu in the play mode.
- The start-up image will not be deleted by [Delete] or [Format] menu.
- The User images will be deleted by [Reset] menu.

LCD brightness

You can adjust the LCD brightness.



- Sub menus : [Auto], [Dark], [Normal], [Bright]

DISPLAY (🖵)

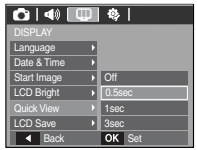
Quick view

If you enable Quick View before capturing an image, you can view the image you just captured on the LCD monitor for the duration set in the [Quick View] setup. Quick view is possible only with still images.

- Sub menus

 [Off] : The quick view function can't be activated.

 [0.5, 1, 3 sec] : The captured image is briefly displayed during the selected time.



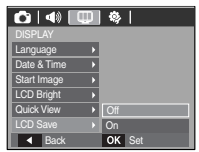
LCD save

If you set the [LCD save] to On and the camera isn't operated during the specified time, the LCD monitor will be turned off automatically.

- Sub menus

 [Off] : The LCD monitor will not be turned off.

 [On] : If the camera isn't operated during the specified time (about 30 SEC.), the camera power will be idle (Camera status lamp:Blinking) automatically.



❊ You can't set the [LCD save] menu of Playback Mode.

SETTINGS (⚙)

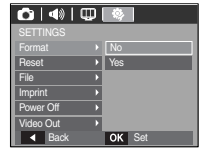
Formatting a memory

This is used for formatting the memory. If you run [Format] on the memory, all images, including the protected images, will be deleted. Be sure to download important images to your PC before formatting the memory.

- Sub menus

 [No] : The memory will not be formatted.

 [Yes] : A window is displayed to confirm the selection. Select the [Yes] menu. A [Processing!] message appears and the memory will be formatted. If you run FORMAT in Play mode, a [No Image!] message will appear.



■ Be sure to run [Format] on the following types of memory card.

- A new memory card, or an unformatted memory card
- A memory card that has a file this camera can't recognise or one that has been taken from another camera.
- Always format the memory card using this camera. If you insert a memory card that has been formatted using other cameras, memory card readers, or PCs, you will get a [Card Error!] message.

SETTINGS (⚙)

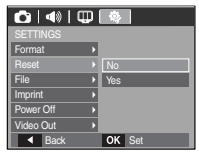
Initialisation

All camera menu and function settings will be restored to their default values. However, values for DATE / TIME, LANGUAGE, and VIDEO OUT will not be changed.

- Sub menus

 [No] : Settings will not be restored to their defaults.

 [Yes] : A window to confirm the selection will be displayed. Select the [Yes] menu and all settings will be restored to their defaults.

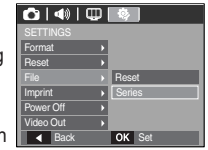


File name

This function allows the user to select the file naming format.

[Reset] : After using the reset function, the next file name will be set from 0001 even after formatting, deleting all or inserting a new memory card.

[Series] : New files are named using numbers that follow the previous sequence, even when a new memory card is used, or after formatting, or after deleting all pictures.



- The first stored folder name is 100SSCAM, and the first file name SDC10001.
- File names are assigned sequentially from SDC10001, SDC10002 ~ SDC19999.
- The folder number is assigned sequentially from 100 to 999 as follows: 100SSCAM, 101SSCAM ~ 999SSCAM.
- Maximum number of files in a folder is 9999.
- The files used with the memory card conform to the DCF (Design rule for Camera File systems) format. If you change the image file name, the image may not play back.

Imprinting the recording date

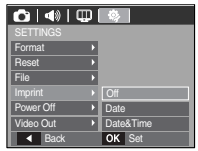
There is an option to include DATE / TIME on still images.

- Sub menus

 [Off] : The DATE & TIME will not be imprinted on the image file.

 [Date] : Only the DATE will be imprinted on the image file.

 [Date&Time] : The DATE & TIME will be imprinted on the image file.



❊ The Date & Time are imprinted at the bottom right side of the still image.

❊ The imprint function is applied only to still images.

❊ Depending on the manufacturer and print mode, the date printed on an image may not be printed correctly.

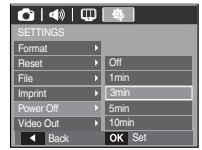
Auto power off

This function switches the camera off after a set amount of time in order to prevent unnecessary battery drainage.

- Sub menus

 [Off] : The power off function will not operate.

 [1, 3, 5, 10 min] : The power will turn off automatically if not used for the period of time specified.

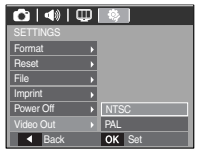


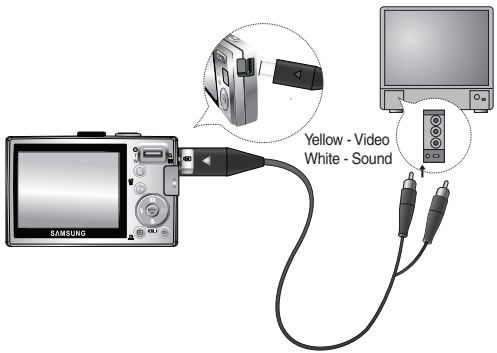
- After replacing the battery, the power off setting will be preserved.
- Note that the automatic power off function will not operate if the camera is in the PC / Printer mode, multi slide show, playing back a voice recording and playing back a movie.

Selecting Video out type

The Movie output signal from the camera can be NTSC or PAL.
Your choice of output will be governed by the type of device (monitor or TV, etc.) to which the camera is connected. PAL mode can support only BDGHI.

■ Connecting to an external monitor
When the camera is connected to an external monitor, the image and menus on the LCD monitor will be visible on the external monitor and the LCD monitor of the camera.





- NTSC : U.S.A, Canada, Japan, South Korea, Taiwan, Mexico.
- PAL : Australia, Austria, Belgium, China, Denmark, Finland, Germany, U.K., Holland, Italy, Kuwait, Malaysia, New Zealand, Singapore, Spain, Sweden, Switzerland, Thailand, Norway.
- When using a TV as an external monitor, you will need to select the external or AV channel of the TV.
- There will be a digital noise on the external monitor, but it is not a malfunction.
- If the image is not in the centre of the screen, use the TV controls to centre it.
- When the camera is connected to an external monitor, some parts of the image may not be displayed.

SETTINGS (⚙)

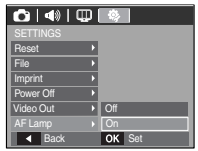
Auto Focus lamp

You can turn on and off the Auto Focus lamp.

- Sub menus

 [Off] : The AF lamp will not light up in low light conditions.

 [On] : The AF lamp will light up in low light conditions.



Software Notes

Please ensure that you read the instruction manual carefully before use.

- The attached software is a camera driver and image editing software tool for Windows.
- Under no circumstances should all or part of either the software or the user manual be reproduced.
- Copyrights for software are licensed only for use with a camera.
- In the unlikely event of a manufacturing fault, we will repair or exchange your camera.
 We cannot, however, be held responsible in any way for damage caused by inappropriate use.
- Using a Hand-made PC or a PC and OS that has not been guaranteed by the manufacturer is not covered by the Samsung warranty.
- Before reading this manual, you should have a basic knowledge of computers and O/S (Operating Systems).

System Requirements

For Windows	For Macintosh
PC with processor better than Pentium II 450MHz (Pentium 800MHz recommended)	Power Mac G3 or later
Windows 98SE/2000/ME/XP/Vista	Mac OS 10.0 ~ 10.4
Minimum 128MB RAM (Over 512MB recommended) 200MB of available hard disk space (Over 1GB recommend)	Minimum 64MB RAM 110MB of available hard-disk space
USB port	USB port
CD-ROM drive	CD-ROM drive
1024x768 pixels, 16bit color display compatible monitor (24bit color display recommended) MicroSoft DirectX 9.0C	MPlayer (For movie)

About the software

After inserting the CD-ROM provided with this camera into the CD-ROM drive, the following window should automatically run.



Before connecting the camera to the PC, you should first install the camera driver.

■ Camera driver : This enables images to transfer between the camera and PC.

This camera uses the USB Storage Driver as the camera driver. You can use the camera as a USB card reader. After installing the driver and connecting this camera to the PC, you can find [Removable Disk] in [Windows Explorer] or [My computer]. A USB Storage Driver is provided only for Windows. A USB Driver for MAC is not included with the Application CD. You can use the camera with Mac OS 10.0~10.4.

■ XviD codec : This allows movie clips (MPEG-4) recorded with this camera to be played back on a PC.

To play back a movie clip recorded with this camera, you must install the XviD codec. If a movie clip recorded with this camera does not play well, install this codec. This software is only compatible with Windows.

About the software

■ Samsung Master : This is the all-in-one multi media software solution.

You can download, view, edit and save your digital images and movies with this software. This software is only compatible with Windows.

- Be sure to check the system requirements before installing the driver.
- You should allow 5 ~ 10 seconds for running the automatic setup program according to the capability of your computer. If the frame does not appear, run the [Windows Explorer] and select [Installer.exe] in the CD-ROM Drive root directory.

Setting up the application software

To use this camera with a PC, install the application software first.
After this has been done, the stored images in the camera can be moved to the PC and can be edited by an image editing program.

■ You can visit the Samsung web-site through the internet.

http: // www.samsungcamera.com : English

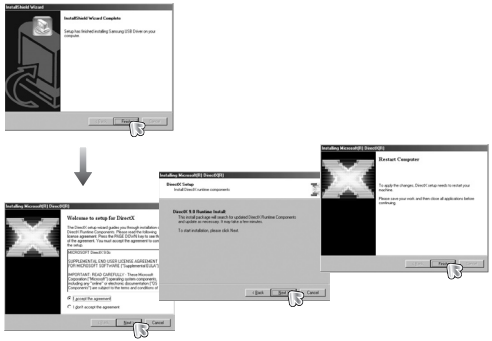
http: // www.samsungcamera.co.kr : Korean

1. The auto run frame will be displayed. Click the [Samsung Digital Camera Installer] menu in the Auto run frame.



2. Install the camera driver, DirectX, Samsung Master and Adobe Reader by selecting a button shown on the monitor. If a latest version of DirectX was installed on your computer, DirectX may not be installed.

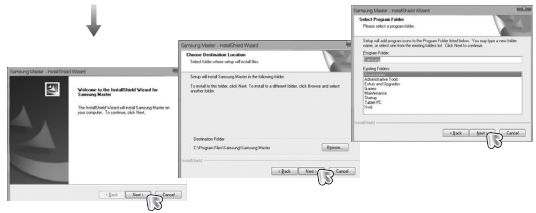
Setting up the application software

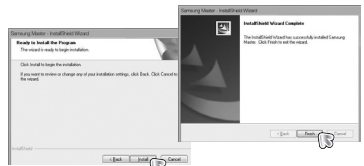


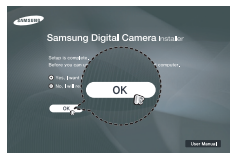








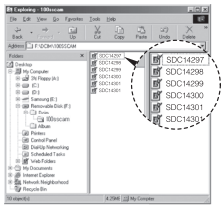




❊ The XviD codec is distributed according to the GNU General Public License and everyone can copy, distribute and change this codec. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. For more information, see the License documents (http://www.gnu.org/copyleft/gpl.html).

Setting up the application software

3. After restarting the computer, connect the PC to the camera with the USB cable.
4. Turn the camera power on.
 The [Found New Hardware Wizard] will open and the computer will recognise the camera.



❉ If your OS is Windows XP/ Vista, an image viewer program will open.
If the download window of Samsung Master opens after starting Samsung Master, the camera driver was set up successfully.

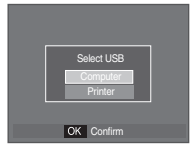
- If you have installed the camera driver, the [Found New Hardware Wizard] may not open.
- On a Windows 98SE system, the Found New Hardware Wizard dialog box opens and a window asking you to select a driver file may appear. In this case, specify “USB Driver” in the CD supplied.
- PDF documents of the user manual are included in the Software CD-ROM supplied with this camera. Search the PDF files with Windows explorer.
 Before opening the PDF files, you must install the Adobe Reader included in the Software CD-ROM.
- To install the Adobe Reader 6.0.1 correctly, Internet Explorer 5.01 or later has to be installed. Visit “www.microsoft.com” and upgrade the Internet Explorer.

Starting PC mode

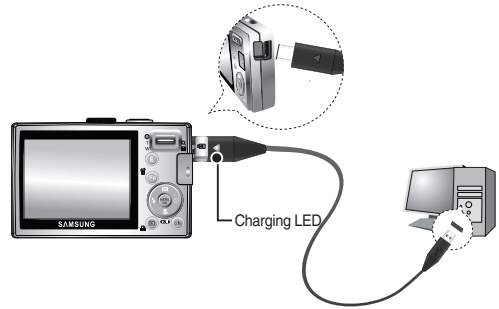
If you connect the USB cable to a USB port on your PC and then turn on the power, the camera will automatically switch to “computer connection mode”. In this mode, you can download stored images to your PC through the USB cable.

■ Camera settings for connection

1. Turn on the camera
2. Connect the camera and computer with the supplied USB cable.
3. Turn on the computer. The camera and computer are connected.
4. External device selection menu will be displayed on the LCD monitor.
5. Select the [Computer] by pressing the Up / Down button and press the OK button.



■ Connecting the camera to a PC



✻ If you selected [Printer] in Step 5, when you connect the camera to your computer, the [Connecting Printer] message will appear and the connection will not be established.
In this case, disconnect the USB cable, and then follow the procedure from Step 2 onwards.

■ Disconnecting the camera and PC

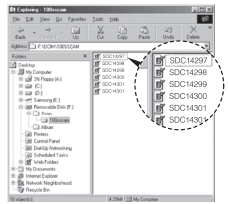
Refer to page 86 (Removing the removable disk).

Starting PC mode

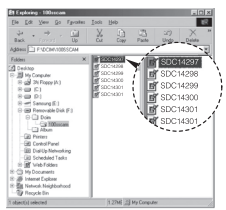
■ Downloading stored images

You can download the still images stored on the camera to your PC's hard disk and print them or use a photo editing software to edit them.

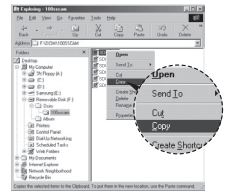
1. Connect the camera to your PC with the USB cable.
2. On your computer's desktop display, select [My computer] and double click [Removable Disk → DCIM → 100SSCAM].
 The image files will then be displayed.



3. Select an image and press the right mouse button.

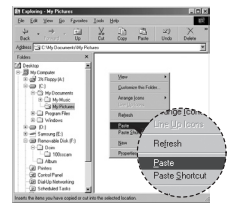


4. A pop-up menu will open.
 Click the [Cut] or [Copy] menu.
 - [Cut] : cuts a selected file.
 - [Copy] : copies files.

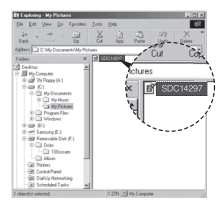


5. Click a folder where you want to paste the file.

6. Press the right mouse button and a pop-up menu will open. Click [Paste].



7. An image file is transferred from the camera to your PC.



Starting PC mode

- By using [Samsung Master], you can see the stored images in the memory directly on the PC monitor and you can copy or move the image files.

- We recommend that you should copy the images to the PC to view them. Opening images directly from the removable disk may be subject to unexpected disconnection.
- When you upload a file that is not taken by this camera to the Removable Disk, the [File Error!] message will be displayed on the LCD monitor in the PLAY mode, and nothing is displayed in THUMBNAIL mode.

Removing the removable disk

■ Windows 98SE

1. Check whether the camera and PC are transferring a file.
 If the camera status lamp blinks, please wait until the lamp has finished blinking and is constantly on.
2. Unplug the USB cable.

■ Windows 2000/ME/XP/Vista
(The illustrations may differ from those shown depending on the Windows O/S.)

1. Check whether the camera and PC are transferring a file.
 If the camera status lamp blinks, please wait until the lamp has finished blinking and is constantly on.
2. Double-click the [Unplug or Eject Hardware] icon on the task bar.



[Double-click!]

3. The [Unplug or Eject Hardware] window will open. Select the [USB Mass Storage Device] and click the [Stop] button.



4. The [Stop a Hardware device] window will open. Select the [USB Mass Storage Device] and click the [OK] button.



Removing the removable disk

5. A [Safe to Remove Hardware] window will open. Click the [OK] button.



6. A [Unplug or Eject Hardware] window will open. Click the [Close] button and the removable disk will be removed safely.



7. Unplug the USB cable.

Setting up the USB Driver for MAC

1. A USB Driver for MAC is not included with the software CD as MAC OS supports the camera driver.
2. Check the MAC OS version during start-up.
 This camera is compatible with MAC OS 10.0 ~ 10.4.
3. Connect the camera to the Macintosh and turn the camera power on.
4. A new icon will be displayed on the desktop after connecting the camera to the MAC.

Using the USB Driver for MAC

1. Double click a new icon on the desktop and the folder in the memory will be displayed.
2. Select an image file and copy or move it to MAC.

- For Mac OS 10.0 or later : First complete uploading from computer to camera and then remove the removable disk with the Extract command.

Removing the USB Driver for Windows 98SE

To remove the USB driver, refer to the process shown below.

1. Connect the camera to your PC and turn them on.
2. Check whether the Removable Disk is on the [My Computer].
3. Remove the [Samsung Digital Camera] on the Device manager.



4 Disconnect the USB cable.

5. Remove the [Samsung USB Driver] on the Add/Remove Programs Properties.



6. Uninstallation is complete.

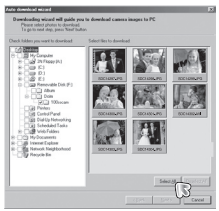
Samsung Master

You can download, view, edit and save your images and movies with this software. This software is only compatible with Windows.

To start the program, click [Start → Programs → Samsung → Samsung Master → Samsung Master].

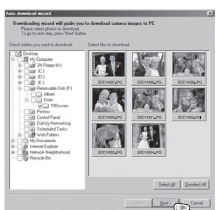
■ Downloading images

1. Connect the camera to your PC.

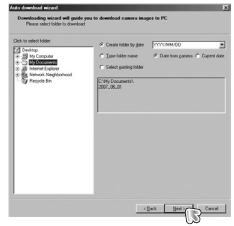


2. A window for downloading images will be displayed after connecting the camera to your PC.
 - To download the captured images, select the [Select All] button.
 - Select desired folder in the window and click the [Select All] button. You can save captured images and selected folder.
 - If you click the [Cancel] button, downloading will be cancelled.

3. Click [Next >] button.



4. Select a destination and make a folder to save downloaded images and folders.
 - Folder names can be made in order of date and images will be downloaded.
 - Folder name will be made as you want and images will be downloaded.
 - After selecting a folder that was made before, images will be downloaded.

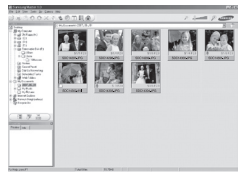


5. Click [Next >] button.

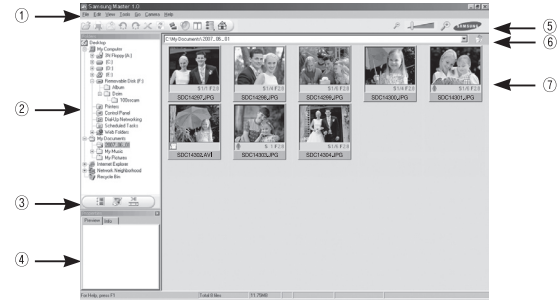
6. A window will open as shown alongside. The destination of the selected folder will be displayed on the upper side of the window.
 Click the [Start] button to download the images.



7. Downloaded images will be displayed.



■ Image viewer : You can view the stored images.

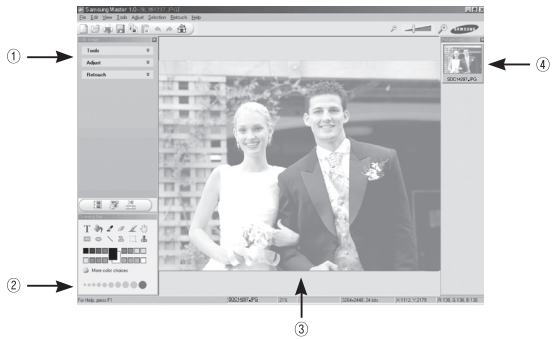


- Image viewer functions are listed below.
 - ① Menu bar : You can select menus. File, Edit, View, Tools, Change functions, Auto download, help, etc.
 - ② Image selection window : You can select the desired images in this window.
 - ③ Media type selection menu : You can select image viewer, image edit and movie edit functions in this menu.
 - ④ Preview window : You can preview an image or a movie and check the multi media information.
 - ⑤ Zoom bar : You can change preview size.
 - ⑥ Folder display window : You can see the folder location of the selected image.
 - ⑦ Image display window : Images of the selected folder are displayed.

❊ Refer to the [Help] menu in Samsung Master for further information.

Samsung Master

■ Image edit : You can edit the still image.



- Image edit functions are listed below.

 ① Edit menu : You can select the following menus.
 [Tools] : You can resize or crop the selected image. See the [Help] menu.
 [Adjust] : You can modify image quality. See the [Help] menu.
 [Retouch] : You can change image or insert effects on the image. See the [Help] menu.
 ② Drawing tools : Tools for editing an image.
 ③ Image display window : A selected image is displayed in this window.
 ④ Preview window : You can preview the changed image.

❊ A still image edited with Samsung Master can't be played back on the camera.

❊ Refer to the [Help] menu in Samsung Master for further information.

■ Movie edit : You can get the still image, movie, narration, music files together in a movie.



- Movie edit functions are listed below.

 ① Edit menu : You can select the following menus.
 [Add Media] : You can add other media elements to a movie.
 [Edit Clip] : You can change the brightness, contrast, colour and saturation.
 [Effects] : You can insert an effect.
 [Set Text] : You can insert texts.
 [Narrate] : You can insert a narration.
 [Produce] : You can save the edited multi media as a new file name.
 * You can select AVI, Windows media (wmv) and Windows media (asf) file types.
 ② Frame display window : You can insert multi media in this window.

Samsung Master

❉ Some movies that were compressed with a codec that is not compatible with the Samsung Master.

❉ Refer to the [Help] menu in Samsung Master for further information.

Specifications

Image Sensor
- Type : 1/2.33" CCD
- Effective Pixel : Approx. 10.2 Mega-pixel
- Total Pixel : Approx. 10.3 Mega-pixel

Lens
- Focal Length : SAMSUNG Lens f = 6.2 ~ 18.6mm (35mm film equivalent : 34 ~ 102mm)
- F No. : F 2.8(W) ~ F 5.2(T)
- Digital Zoom : • Still Image mode : 1.0X ~ 5.0X
 • Play mode : 1.0X ~ 11.4X (depends on image size)

LCD Monitor
- 2.5" color TFT LCD (230,000 dots)

Focusing
- Type : TTL auto focus (Multi-AF, Center-AF, Face Detection AF)
- Range

	Normal	Macro	Auto macro
Wide	80cm ~Infinity	5cm ~ 80cm	5cm ~ Infinity
Tele		50cm ~ 80cm	50cm ~ Infinity

Shutter
- Speed : 1 ~ 1/1,500 sec. (Manual : 8 ~ 1/1,500 sec.)

Exposure
- Control : Program AE
- Metering : Multi, Spot, Center Weighted
- Compensation : ±2EV (1/3EV steps)
- ISO : Auto, 80, 100, 200, 400, 800, 1600

Specifications

Flash
- Modes : Auto, Auto & Red-eye reduction, Fill-in flash, Slow sync, Flash off, Red-eye Fix
- Range : Wide : 0.2m ~ 4.7m, Tele : 0.5m ~ 2.5m(ISO AUTO)
- Recharging Time : Approx. 4 sec

Sharpness
- -2, -1, 0, +1, +2

Color Effect
- Normal, B&W, Sepia, Red, Blue, Green, Negative, Custom Color

White Balance
- Auto, Daylight, Cloudy, Fluorescent_H, Fluorescent_L, Tungsten, Custom

Voice Recording
- Voice Recording (max. 10 hours)
- Voice Memo in Still Image (max. 10 sec.)

Date Imprinting
- Date, Date & Time, Off (user selectable)

Shooting
- Still Image
 - Mode : Auto, Program, Manual, DUAL IS, Photo Help Guide, Scene, Portrait
 - Scene : Nightscene, Children, Landscape, Close up, Text, Sunset, Dawn, Backlight, Firework, Beach & Snow
 - Shooting : Single, Continuous, AEB, Motion Capture
 - Self-timer : 10 sec., 2 sec., Double, Motion Timer
- Movie
 - With Audio or without Audio
 ❊ The maximum memory capacity of continuous movie is 2 hours.
 - Size : 800x592, 640x480, 320x240
 (20fps Only 800x592 quality)
 (30fps / 15fps Only 640x480, 320x240 quality)
 - Frame rate : 30 fps, 20 fps, 15 fps

Storage
- Media
 - Internal memory : 10MB flash memory
 - External Memory (Optional)
 : SD (up to 2GB guaranteed)
 SDHC Card (up to 4GB guaranteed)
 MMC Plus (Up to 2GB)
- File Format
 - Still Image : JPEG (DCF), EXIF 2.2, DPOF 1.1, PictBridge 1.0
 - Movie : AVI (MPEG-4)
 - Audio : WAV
- Image Size

10M	9M	7M	7M	5M	3M	1M
3648 X 2736	3648 X 2432	3072 X 2304	3648 X 2052	2592 X 1944	2048 X 1536	1024 X 768

Specifications

- Capacity (256 MB Size)

	10M	9M	7M	7M	5M	3M	
Super Fine	50	57	71	66	100	146	504
Fine	96	109	133	126	181	269	710
Normal	140	156	192	183	260	372	822

❊ These figures are measured under Samsung standard conditions and may vary depending on shooting conditions and camera settings.

"E" Button
- Effect : Color, Image Adjust (Sharpness, Contrast, Saturation)
- Editing : Resize, Rotate, Color, Image Adjust (ACB, Red Eye Fix, Brightness, Contrast, Saturation)

Image Play
- Type : Single image, Thumbnails, Multi Slide show, Movie

Interface
- Digital output connector : USB 2.0 High Speed
- Audio : Mono
- Video output : NTSC, PAL (user selectable)

Power Source
- Rechargeable battery : SLB-10A, 3.7V (1,050mAh)
- Adaptor : SAC-47 (DC 4.2V, 400mA)

Dimensions (WxHxD)
- 87.7 X 56.3 X 20mm (excluding protrusions)

Weight - 114.5g (without batteries and card)

Operating Temperature
- 0 ~ 40°C

Operating Humidity
- 5 ~ 85%

Software - Samsung Master, Adobe Reader

❊ Specifications are subject to change without prior notice.

❊ All trademarks are the property of their respective owners.

Important notes

Be sure to observe the following precautions!

- This unit contains precision electronic components. Do not use or store this unit in the following locations.
 - Areas exposed to extremes of in temperature and humidity.
 - Areas exposed to dust and dirt.
 - Areas exposed to direct sunlight or the inside of a vehicle in hot weather.
 - Environments where there is high magnetism or excessive vibration.
 - Areas with high explosives or highly flammable materials.
- Do not leave this camera in places subject to dust, chemicals (like naphthalene and mothballs), high temperature and high humidity. Keep this camera with silica gel in a hermetically sealed box when not planning to use the camera for a long period of time
- Sand can be particularly troublesome to cameras.
 - Do not let sand get inside the camera when using it on beaches, coastal dunes, or other sandy areas.
 - Doing so may result in failure or may permanently render the camera unusable.
- Handling the camera
 - Never drop the camera or subject it to severe shocks or vibrations.
 - Protect the large size LCD monitor from an impact. When the camera is not in use keep it in the camera case.
 - Avoid obstructing the lens or the flash when you capture an image.
 - This camera is not waterproof.
 To avoid dangerous electrical shocks, never hold or operate the camera with wet hands.
 - If you use this camera in wet places, such as beach or pool, do not let water or sand get inside the camera. Doing so may result in failure or may permanently damage the unit.

Important notes

- Extremes in temperature may cause problems.
 - If the camera is taken from a cold to a warm and humid environment, condensation can form on the delicate electronic circuitry. If this occurs, turn the camera off and wait for at least 1 hour until all moisture has dispersed. Moisture build up can also occur on the memory card. If this happens, turn off the camera and remove the memory card. Wait until the moisture has dispersed.
- Caution on Using the Lens
 - If the lens is subjected to direct sunlight, it could result in the discoloration and deterioration of the image sensor.
 - Take care not to get fingerprints or foreign substances on the surface of the lens.
- If the digital camera is not used for a long period, an electric discharge can occur. It is a good idea to remove the battery and the memory card if you do not intend using the camera for an extended period of time.
- If the camera is exposed to an electronic interference, it will turn itself off to protect the memory card.
- Camera Maintenance
 - Use a soft brush (available from photo stores) to gently clean the lens and LCD assemblies. If this does not work, lens-cleaning paper with lens cleaning fluid can be used.
 Clean the camera body with a soft cloth. Do not allow this camera to come into contact with solvent materials such as benzol, insecticide, thinners etc. This may damage the body shell of the camera and also affect its performance. Rough handling can damage the LCD monitor. Take care to avoid damage and keep the camera in its protective carry case at all times when not in use.
- Do not attempt to disassemble or modify the camera.
- Under certain conditions, static electricity can cause the flash unit to fire. This is not harmful to the camera and is not a malfunction.
- When images are uploaded or downloaded, the data transfer may be affected by static electricity. In this case, disconnect and re-connect the USB cable before trying the transfer again.
- Before an important event or going on a trip, you should check the camera condition.
 - Take a picture for testing the camera condition and prepare extra battery.
 - Samsung cannot be held responsible for camera malfunctions.

Warning indicator

There are several warnings that may appear on the LCD display.

[Card Error !]

- Memory card error
 → Turn off the camera power and turn it on again
 → Insert the memory card again
 → Insert and format the memory card (p.75)

[Card Locked!]

- The memory card is locked
 → SD/SDHC memory card : Slide the write protect switch to the top of the memory card

[No Card!]

- A memory card is not inserted
 → Insert the memory card again
 → Turn off the camera power and turn it on again

[No Image!]

- There are no images stored on the memory
 → Take images
 → Insert a memory card that is holding some images

[File Error!]

- File error
 → Delete the file.
- Memory card error
 → Contact a camera service centre.

[Low Battery!]

- There is low battery capacity
 → Insert fresh batteries.

[Low Light!]

- When taking pictures in dark places
 → Take pictures in Flash Photography mode.

Before contacting a service centre

Please check the following

The camera doesn't switch on

- There is low battery capacity
 → Insert fresh batteries. (p.15)
- Battery is inserted incorrectly with the polarities reversed.
 → Insert the battery according to the polarity marks (+, -).

The camera power ceases while in use

- The battery is exhausted
 → Insert fresh batteries.
- The Camera is turned off automatically
 → Turn on the camera power again.

Battery power quickly drains

- The Camera is being used in low temperatures
 → Keep the camera in warm conditions (i.e. inside a coat or jacket) and only remove it in order to take images.

Camera does not take images when pressing the Shutter button

- There is insufficient memory capacity
 → Delete unnecessary image files
- The memory card has not been formatted
 → Format the memory card (p.75)
- The memory card is exhausted
 → Insert a new memory card
- The memory card is locked
 → Refer to [Card Locked!] error message
- The camera's power is off
 → Turn the camera power on
- The battery is exhausted
 → Insert fresh batteries (p.15)
- Battery is inserted incorrectly with the polarities reversed.
 → Insert the battery according to the polarity marks (+, -)

The camera suddenly stops working while in use

- The camera stopped due to a malfunction
 → Remove /re-insert battery and switch the camera on

The images are unclear

- A picture was taken of the subject without setting an appropriate macro mode
 → Select an appropriate macro mode to take a clear image.
- Taking a picture beyond the flash range
 → Take a picture within the flash range
- The lens is smudged or dirty
 → Clean the lens

Before contacting a service centre

The flash does not fire

- Flash off mode has been selected
 → Dis-engage flash off mode
- The camera mode can't use the flash
 → Refer to the FLASH instruction (p.30)

Incorrect date and time is displayed

- The date and time have been set incorrectly or the camera has adopted the default settings
 → Reset the date and time correctly

The camera buttons do not operate

- Camera malfunction
 → Remove/re-insert battery and switch the camera on

A card error has occurred while the memory card is in the camera.

- Incorrect memory card format
 → Re-format the memory card

The images don't play back

- Incorrect file name (Violation of DCF format)
 → Do not change the image file name

Colour of image is different to the original scene

- White balance or effect setting is incorrect
 → Select appropriate White balance and effect

Images are too bright

- Exposure is excessive
 → Reset exposure compensation

No image on external monitor

- The external monitor has not been connected properly with the camera
 → Check the connection cables
- There are incorrect files in the memory card
 → Insert a memory card that has correct files

When using the PC's explorer, the [Removable Disk] file does not show

- Cable connection is incorrect
 → Check the connection
- The camera is off
 → Turn the camera on
- The operating system is not Windows 98SE, 2000, ME, XP, Vista / Mac OS 10.0 - 10.4. Alternatively the PC does not support USB
 → Install Windows 98SE, 2000, ME, XP, Vista / Mac OS 10.0 - 10.4 to PC that supports USB
- The camera driver is not installed
 → Install a [USB Storage Driver]

FAQ

Please check the following if the USB connection malfunctions.

Case 1 USB cable is not connected or it is not the supplied USB cable.

→ Connect the supplied USB cable.

Case 2 The camera is not recognised by your PC. Sometimes, the camera may appear under [Unknown Devices] in Device Manager.

→ Install the camera driver correctly.
Turn off the camera, remove the USB cable, plug in the USB cable again, and then turn on the camera.

Case 3 There is an unexpected error during file transfer.

→ Turn the camera power off and on again. Transfer the file again.

Case 4 When using the USB hub.

→ There may be a problem in connecting the camera to the PC through the USB hub if the PC and the hub are not compatible. Wherever possible, connect the camera to the PC directly.

Case 5 Are other USB cables connected to the PC?

→ The camera may malfunction when it is connected to the PC at the same time as another USB cable. In this case, disconnect the other USB cable, and connect only one USB cable to the camera.

Case 6 When I open the Device Manager (by clicking Start (Settings) Control Panel (Performance and Maintenance) System (Hardware) Device Manager), there are Unknown Devices or Other Devices entries with a yellow question mark(?) beside them or devices with an exclamation mark(!) beside them.

→ Right-click on the entry with the question (?) or exclamation (!) mark and select “Remove”. Restart the PC and connect the camera again. For Windows 98SE PC, remove the camera driver also, restart the PC, and then reinstall the camera driver.

Case 7 In some security programs (Norton Anti Virus, V3, etc.), the computer may not recognise the camera as a removable disk.

→ Stop the security programs and connect the camera to the computer. Refer to the security program instructions about how to temporarily disable the program.

Case 8 The camera is connected to the USB port located on the front of the computer.

→ When the camera is connected to the USB port located on the front of the computer, the computer may not recognise the camera. Connect the camera to the USB port located on the back of the computer.

FAQ

When the movie doesn't play back on the PC

❊ When the movie recorded by the camera doesn't play back on the PC, the causes are mostly due to the codec installed on the PC.

■ When the DirectX 9.0 or later is not installed
→ Install the DirectX 9.0 or later

1) Insert the CD provided with the camera

2) Run the windows explorer and select the [CD-ROM drive:\ USB Driver\ DirectX 9.0] folder and click the DXSETUP.exe file.
The DirectX will be installed. Visit the following site for downloading the DirectX.http://www.microsoft.com/directx

■ If a PC (Windows 98SE) stops responding while the camera and PC are connected repeatedly

→ If a PC (Windows 98SE) is turned on for a long time and the camera is connected repeatedly, the PC may not recognise the camera.
In this case, re-start the PC.

■ If a PC connected with the camera stops responding while Windows is starting.

→ In this case, disconnect the PC and the camera and Windows will start. If the problem happens continuously, set the Legacy USB Support to disable and re-start the PC. The Legacy USB Support is in the BIOS setup menu. (The BIOS setup menu differs from the PC manufacturers and some BIOS menus don't have Legacy USB Support) If you can't change the menu by yourself, contact to the PC manufacturer or BIOS manufacturer.

■ If the movie can't be deleted, or the removable disk can't be extracted or an error message displays during the file transfer.

→ If you install only the Samsung Master, the problems mentioned above occasionally happen.

- Close the Samsung Master program by clicking the Samsung Master icon on the Taskbar.
- Install all the application programs included in the software CD.

Correct Disposal of This Product

Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems) This marking shown on the product or its literature, indicates that it should not be disposed of with other household wastes at the end of its working life.

To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of waste and recycle it responsibly to promote the sustainable re-use of material resources. Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling. Business users should contact their supplier and check the terms and conditions of the purchase contract.

This product should not be mixed with other commercial waste for disposal.



Samsung Techwin cares for the environment at all product manufacturing stages to preserve the environment, and is taking a number of steps to provide customers with more environment-friendly products. The Eco mark represents Samsung Techwin's will to create environment-friendly products, and indicates that the product satisfies the EU RoHS Directive.

FCC notice

■ NOTE :

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different to that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

■ CAUTION :

Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

■ Declaration of Conformity

Trade Name	: SAMSUNG TECHWIN
Model No.	: SAMSUNG L210
Responsible Party	: Samsung Opto-Electronics America, INC.
Address	: 40 Seaview Dr. Secaucus,NJ 07094
Telephone No.	: 201-902-0347

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

MEMO

SAMSUNG

Internet address - http : //www.samsungcamera.com

Please refer to the warranty that came with the product you purchased,
or go to our website http://www.samsungcamera.com/ for after-sales service or inquiries.

CE The CE Mark is a Directive conformity mark of the European Community (EC)